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FALL 1984

survey of business

THE UNIVERSITY OF TENNESSEE

ALTERNATIVES FOR TAX RESTRUCTURE IN TENNESSEE

center for business and economic research / college of business administration / the university of tennessee / knoxville

FALL 1984 VOLUME 20, NUMBER 2

survey of business

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4

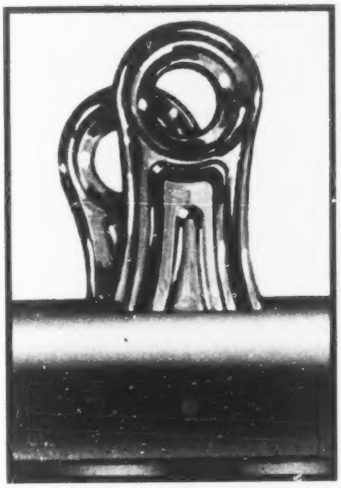
TAX REFORM IN TENNESSEE: NEEDS AND OPTIONS

William F. Fox,
Associate Professor of Economics and Associate Director of CBER
and
Kenneth E. Quindry,
Research Professor Emeritus, UTK

12

TAX REFORM: GOOD BUSINESS FOR TENNESSEE

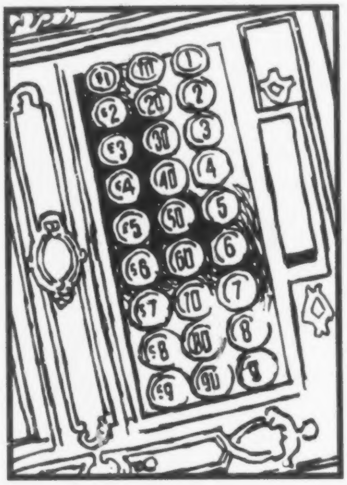
The Honorable John T. Bragg,
State Representative,
and
W. Jeff Reynolds,
Staff Assistant Comptroller of the Treasury, State of Tennessee



16

TAX ISSUES AND ALTERNATIVES

Stanley M. Chervin,
Director of Research, Tennessee Department of Revenue



20

RESTRUCTURING BUSINESS TAXES IN TENNESSEE

Kenneth E. Quindry
Research Professor Emeritus, UTK
and
John L. Parish,
Chairman of the Board and CEO, Lannom Manufacturing Co., Inc.

SURVEY OF BUSINESS, The University of Tennessee, Knoxville (ISSN 0099-0973), is published quarterly by the College of Business Administration, Center for Business and Economic Research, The University of Tennessee, Knoxville. Authorization No. EOI-1490-001-83.
Back issues and article reprints may be ordered at $1.25 per copy. Address correspondence to Editor, Center for Business and Economic Research, Suite 100, Glocker Hall, The University of Tennessee, Knoxville, Knoxville, Tennessee, 37996-4170. Second class postage paid at Knoxville and Nashville, Tennessee. Requests for inclusion on mailing list and address corrections should be sent to the same address.

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Consulting Editor's Comments

Tax reform is currently a major concern of government at every level, particularly among the states. Mostly in response to the effects of recent business cycles, tax reform commissions have been created in twelve states to study and make recommendations on the best tax structures. Since states have different economic patterns, citizen expectations, and historical development, it is necessary for them to determine independently what tax structures best suit their needs.

The Tennessee state revenue structure has major flaws which require reform if the service requirements of the citizens are to be met adequately. In response to these perceived flaws, groups from both the executive and legislative branches have been meeting regularly for more than a year to consider the best alternatives. Any recommendations they choose to make are expected sometime this winter.

The importance and timeliness of the structure alternatives make it an appropriate subject for an entire issue of the **Survey of Business**. The first article, by William F. Fox and Kenneth E. Quindry, is an overview of the current tax structure, reasons for reform, and alternatives for reform. Dr. Quindry, a long-time student of the Tennessee tax structure, was staff director of the 1974 Tennessee Tax Reform Commission.

The second article, authored by Representative John T. Bragg and W. Jeff Reynolds, identifies three basic problems with the current Tennessee tax structure: it is not fair, it is not good for business, and it does not work well for government. Representative Bragg is chairman of the Special Joint Legislative Task Force on Taxation, and Mr. Reynolds is staff assistant to the Tennessee Comptroller and has been serving as a staff member to the Task Force.

Stanley M. Chervin, Research Director in the Tennessee Department of Revenue, authored the third article on "Tax Issues and Tax Alternatives." Dr. Chervin has been directly involved as a staff member on the tax reform committees.

Kenneth E. Quindry and John L. Parish provided the fourth article on restructuring business taxes. They conclude that the optimal approach to taxing business in Tennessee would be through a single business tax. As a business leader and former Commissioner in the Department of Economic and Community Development, Mr. Parish has a keen sense of what tax structure would best serve this state.

William F. Fox,
Consulting Editor[*]

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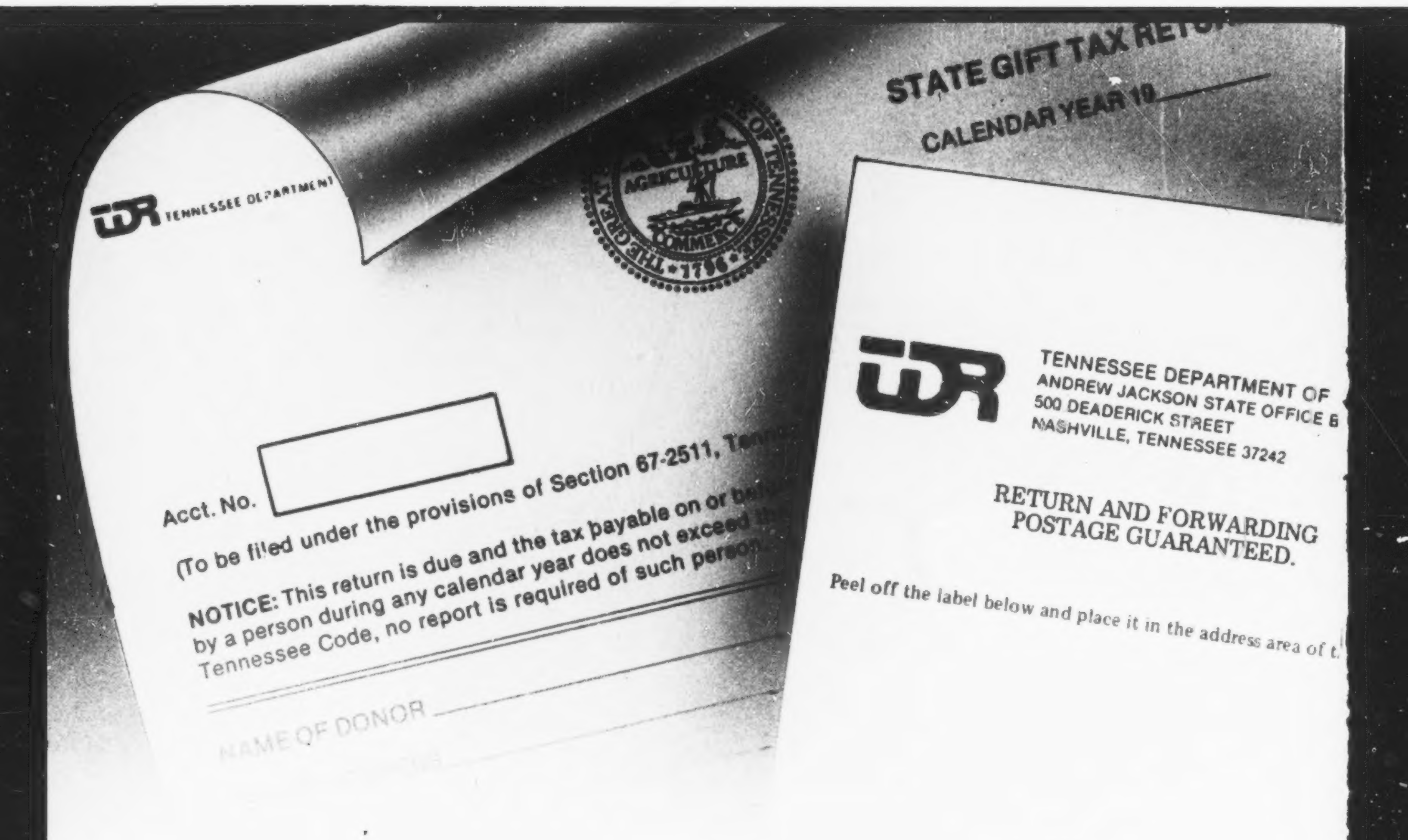
[*]William F. Fox is Associate Professor of Economics at The University of Tennessee, Knoxville, Associate Director of the Center for Business and Economic Research, and Director of the Tennessee Econometric Modelling Project.



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Tax Reform In Tennessee: Needs and Options

William F. Fox and Kenneth E. Quindry

Recently, tax reform has been the subject of discussion in Tennessee, because two groups of policy makers are now intently considering the issue. A legislative task force comprised of seven members of the House, seven members of the Senate, the Lieutenant Governor, and the Speaker of the House has been actively examining the need for reform, and, at the same time, a cabinet-level committee has been undertaking a similar exercise for the executive branch. Both groups are expected to reveal their recommendations in early 1985.

This article describes previous efforts to reform taxes, the current Tennessee fiscal condition, the reasons why tax reform may be desirable, and the potential approaches to tax reform.

HISTORY OF TAX REFORM

Current studies of tax reform represent the continuation of a long line of such efforts dating from at least 1915, with 22 major tax studies conducted from 1915 to 1982. However, while they were viewed as comprehensive, most studies in the past concluded with limited recommendations regarding the taxing of privileges, property, and sales. The Hall income tax, the state and local general sales taxes, the local business taxes, and classification of property for taxation are examples of major recommendations of study groups that were eventually enacted by the legislature.

The Legislative Council (1953) and the Fiscal Review Committee (FRC-1957), established as permanent research agencies, were given the responsibility of studying state-local tax policies. The council has now been replaced by the Tennessee Advisory Commission on Intergovernmental Relations (TACIR). Both the FRC and the TACIR continually focus on specific taxes and current fiscal issues as directed by the legislature.

Early on, Tennesseans concluded that income taxation was the domain of the federal government: hence, the state passed the sales tax of 1946. It was not until 1961 that a Legislative Council Committee report recognized the potential need for a personal income tax to be instituted at some later but indefinite time. In 1972-74 the Tax Modernization and Reform Commission recommended a low flat rate personal income tax. The enabling statute and the report itself reflected the growing concern over continuing personal tax inequities and the need to improve the business climate to create more jobs and income. A tax system based on consumption and property was regarded as inelastic and regressive as well as inimical to balanced economic development.

A better business climate, including relief from the complex business tax structure, was the primary objective of a 1977 study commissioned by the Department of Economic and Community Development and conducted by U.T. personnel. This study proposed a simple comprehensive business tax in lieu of a series of gross receipts, income, and privilege taxes. The business tax would broaden the concept of what constitutes a business for business tax purposes (especially to professions), reduce the distinction between incorporated and unincorporated businesses for tax purposes, and broaden the tax base by removing most exemptions and deductions.

William F. Fox is the Associate Director for the Center for Business and Economic Research and Associate Professor of Economics at The University of Tennessee, Knoxville, College of Business Administration. Director of the Tennessee Econometric Modelling Project and a consultant to various state agencies, he has published widely in public finance and regional economics.

Kenneth E. Quindry is Research Professor Emeritus at the Center for Business and Economic Research, College of Business Administration, The University of Tennessee, Knoxville. Former chairman of the Research Section of the National Association of Tax Administration, he also served on the Association's Committee for Intergovernmental Fiscal Relations and has assisted the legislative committee charged with drafting the legislation implementing the Tennessee Spending Limitation.

TENNESSEE FISCAL CONDITION

Expenditures

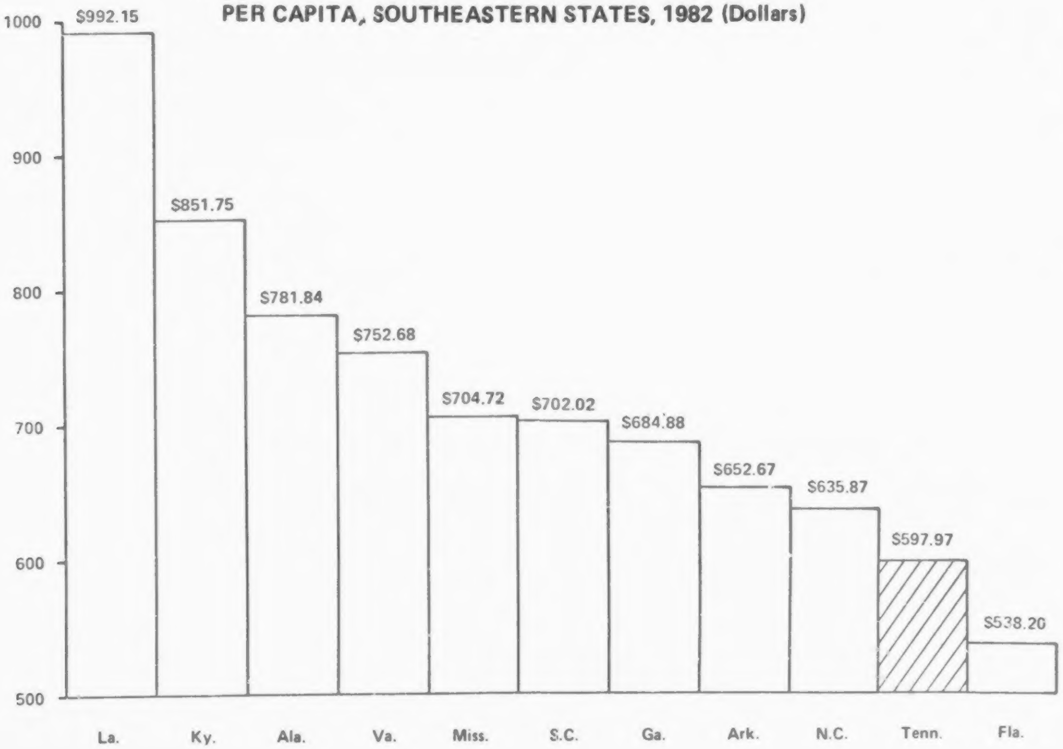
Although determining the desired size of government is conceptually complex, one approach is to compare per-capita expenditures with those of other states. The Tennessee state government public sector is small when measured by expenditures per capita. Nine southeastern states spend more per capita than Tennessee, and only Florida ranks lower. State expenditures for education, parks, highways, corrections, and other public services were $597.97 per capita in Tennessee in 1982 (see Figure 1).

Comparisons based solely on state expenditures can be misleading, however, because services provided by states in some places are provided by local governments in others. Nonetheless, the picture remains the same, since Tennessee still ranks tenth in per-capita spending when all state and local government expenditures are added together. However, in this case, Arkansas is lowest on the list, and Florida moves to third.

Education expenditures comprise 52 percent of Tennessee state government expenditures (see Figure 2), up from 43 percent twenty years ago.

FIGURE 1

STATE GOVERNMENT DIRECT GENERAL EXPENDITURE PER CAPITA, SOUTHEASTERN STATES, 1982 (Dollars)



In 1984-85, transportation represents 10 cents of every dollar spent compared with 16 cents of every dollar in 1963-64. Counties and cities receive 9 cents in shared taxes today versus 13 cents twenty years ago. The remainder is spent on a wide assortment of activities, including corrections, government operations, recreation and regulation.

Tax Structure

Tennessee state government revenues raised from own sources (excluding federal grants) were a smaller percentage of personal income in 1983 than in 1970 (see Figure 3). The pattern of the tax burden, measured by revenues relative to personal income, has been volatile in the interim, but the reasons are straightforward. Tax rate increases in 1971 (sales and corporate excise), 1976 (sales), and 1981 (gasoline) caused increases in the tax burden. During the other years the tax burden declined because tax revenues grew slower than income.

The Tennessee tax structure is dominated by consumption-related taxes (see Figure 4). The general sales tax provided 52.4 percent of tax collections in 1983, and this percentage will rise in 1984 because of the sales tax rate increase. Selective sales taxes, including those on motor fuels, tobacco, and alcohol, provide another 23.5 percent of tax collections, so that consumption-related taxes are responsible for 75.9 percent of collections.

Tennessee differs markedly from the average state in its reliance on consumption taxes. The average state generates less than one-third of its taxes from a general sales tax and about one-sixth of its revenues from selective sales taxes. Overall, the average state obtains only 48.9 percent of its tax dollar from consumption-based taxes. Relative reliance on the corporate income tax is also heavier in Tennessee.

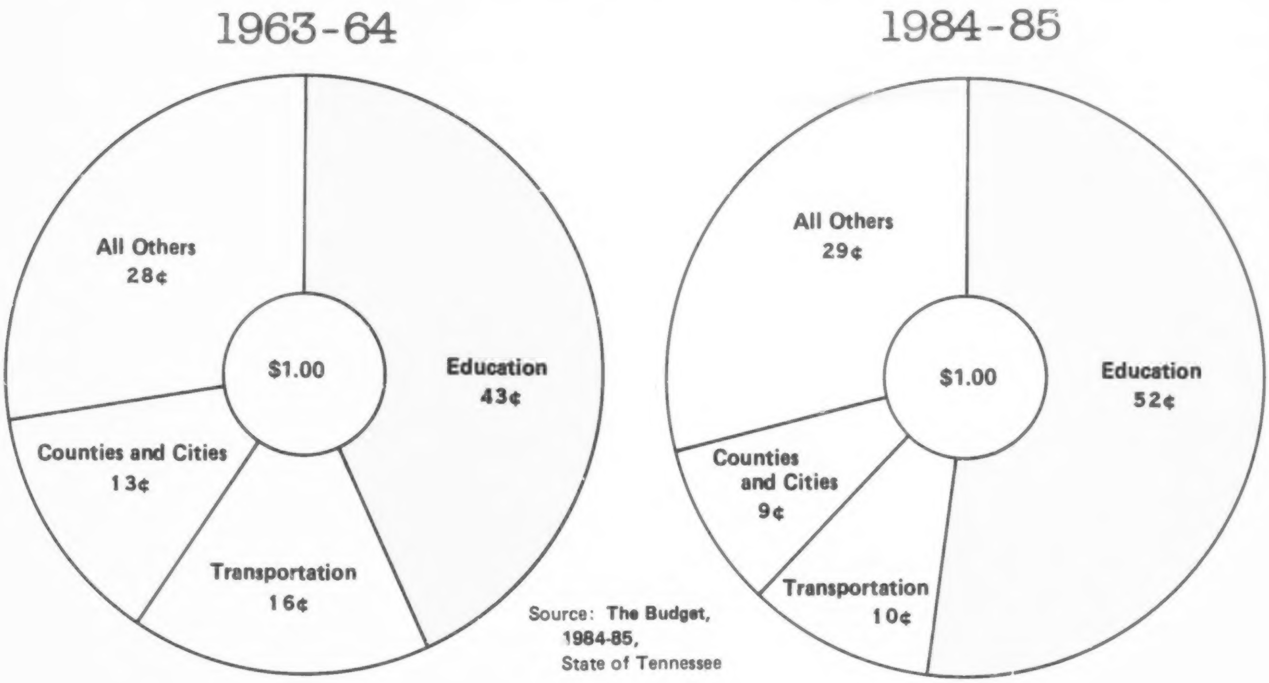
The average state has a reduced reliance on consumption-based taxes because it balances the structure with an income tax. Nationwide, 29.1 percent of state tax revenues arise from income taxes, and Tennessee generates only 2.3 percent of revenues from the Hall income tax on dividends and interest.

The Tennessee tax structure is also different from other southeastern states (see Figure 5). Except for Florida, all states generate a greater share of revenues from an income tax than Tennessee. States which choose limited use of an income tax generally have other significant bases to tax. The ability to tax tourists in Florida makes the sales tax an appropriate collection device. Louisiana, the other southeastern state generating a small percentage of revenues from an income tax, is able to raise large revenues from oil-related sources.

In 1983, Florida was the only state to raise a higher percentage of revenues from the general sales tax than Tennessee, although the 1984 Tennessee sales tax rate increase probably places Tennessee ahead of Florida in reliance on the sales tax. Also, Tennessee is the

Figure 2

Where Your Tax Dollar Goes



Source: **The Budget, 1984-85,** State of Tennessee heaviest user of consumption-based taxes when the general and selective sales taxes are added together.

Summary

Tennessee is a small government state when compared with other southeastern states. More than one-half of the state's government expenditures go for education, representing a much greater share than was appropriated 20 years ago. By comparison with either the United States or the Southeast, Tennessee is a very heavy user of consumption-based taxes and a very light user of income-based taxes.

REASONS FOR TAX REFORM

The reasons that tax reform is necessary in Tennessee can be grouped into five classifications – simplification; equity; unstable revenue growth; economic development; and revenue generation. Details for each are enumerated in the following sections.

Simplification

Simplification of the tax system is frequently supported as the most important need for business tax reform. The numerous levies are regarded as burdensome to comply with, particularly for small businesses. An individual business firm could pay corporate excise, corporate franchise, gross receipts, sales, local business, personal and real property taxes and could be responsible for collecting the sales tax on its retail sales. Compliance with these taxes can be expensive for the firms, and administrative costs are high for state government because of the proliferation of small taxes. Replacement of the many small taxes with a few productive taxes is the solution generally advocated.

The degree of simplicity desired for the tax system must be balanced with other objectives. A less complex system, for example, is more difficult to tune to the needs and concerns of each business type. Thus, a certain degree of complexity is necessary to maintain a fair system.

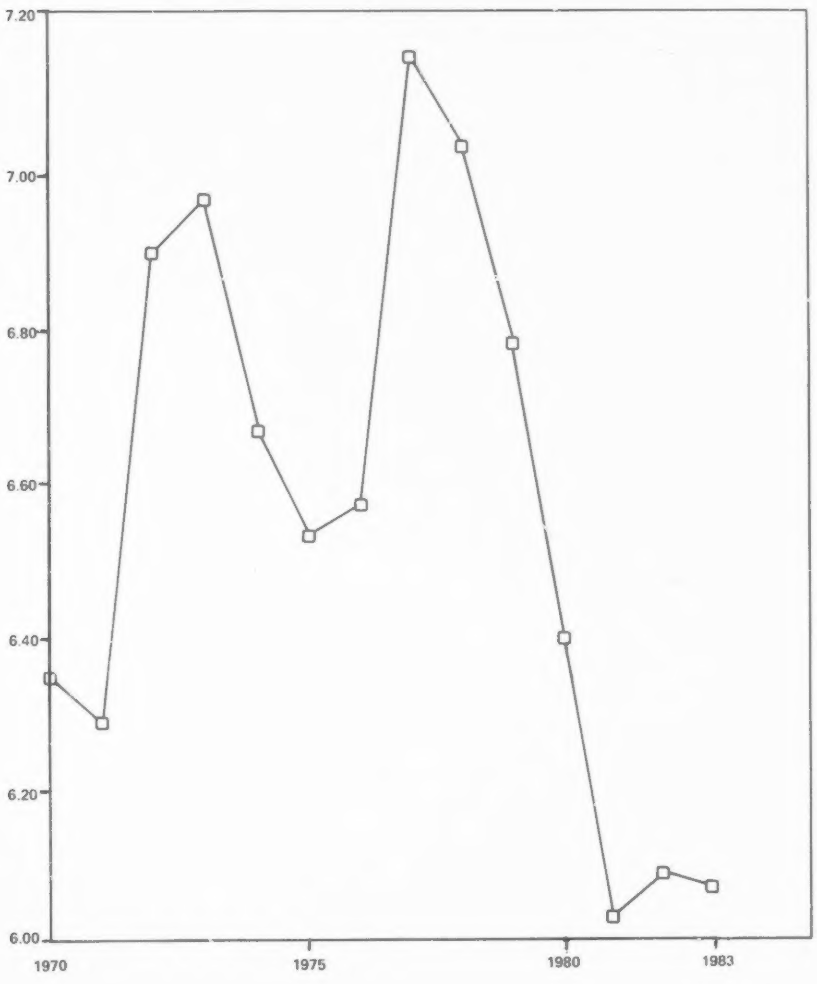
Equity

Equity is a concept with no generally accepted definition. A person's sense of fairness will determine whether or not he/she finds the Tennessee tax system to be equitable. We do know that the Tennessee tax structure is regressive, and many have argued that this characteristic makes the system inequitable, since a regressive tax system is one in which the percentage of a family's income paid in taxes declines as family income rises. Tennessee's tax structure is regressive because of the emphasis on consumption-based taxes. It is an accepted fact that higher income earners consume a smaller portion of their income, so they pay relatively fewer taxes, compared to their income. Further, many items – including housing and most professional services – are not taxed by the sales tax. Such items are a larger part of the budgets of high income earners, providing a second reason why their taxes are lower relative to income.

Equity is a concept which is most commonly applied to personal taxes. Since businesses do not actually pay taxes, but shift them to consumers, owners, or workers, consumer equity should be examined by looking at

FIGURE 3

TENNESSEE STATE GOVERNMENT OWN SOURCE REVENUE AS A PERCENT OF TOTAL PERSONAL INCOME 1970-1983



business taxes after shifting. The major concern for business taxes is that they not be capricious or discriminatory. If equity involves the lack of capriciousness and discrimination, taxes must be imposed so that the tax burden is even across industries. An equitable business tax burden will prevent the tax structure from encouraging or discouraging development of any specific industry, a factor which economists call tax neutrality.

Unstable Revenue Growth

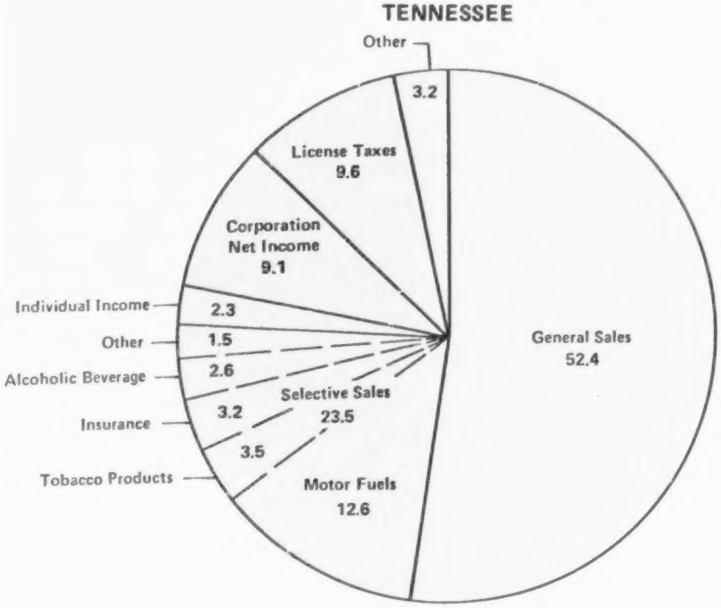
Tennessee's present tax structure results in unstable revenue growth. During an economic expansion, revenues will grow moderately, but more slowly than income. The taxes on alcohol, cigarettes, and gasoline are per volume, or quantity, rather than per dollar spent, meaning that these taxes do not increase with inflation. Even the "general" sales tax grows more slowly than income, because it fails to tax many items purchased primarily by persons with higher incomes. During economic recessions, the consumption of major durable goods like automobiles and furniture declines so rapidly that sales tax revenues grow even more slowly relative to income.

These relationships signify two problems. First, because tax revenue growth is slower than resident's income growth, legislators must continually raise tax rates in order to keep the level of the public sector (government) constant relative to the aggregate economy. This leveling process has required five major tax increases in the past 14 years.

The second problem is that since, during recessions, the growth of revenue is much slower than the growth of income, the general decline in revenues relative to income becomes more obvious. The result has been that the pressures for tax rate increases have always accelerated during recessions; and, in fact, each of the five major rate increases has occurred at the end of a recession.

FIGURE 4

PERCENTAGE DISTRIBUTION OF STATE GOVERNMENT TAX COLLECTIONS TENNESSEE AND UNITED STATES, 1983



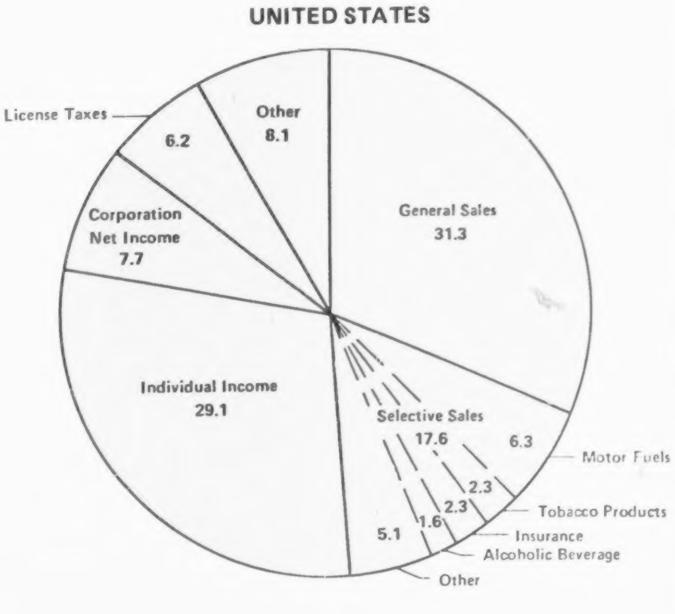
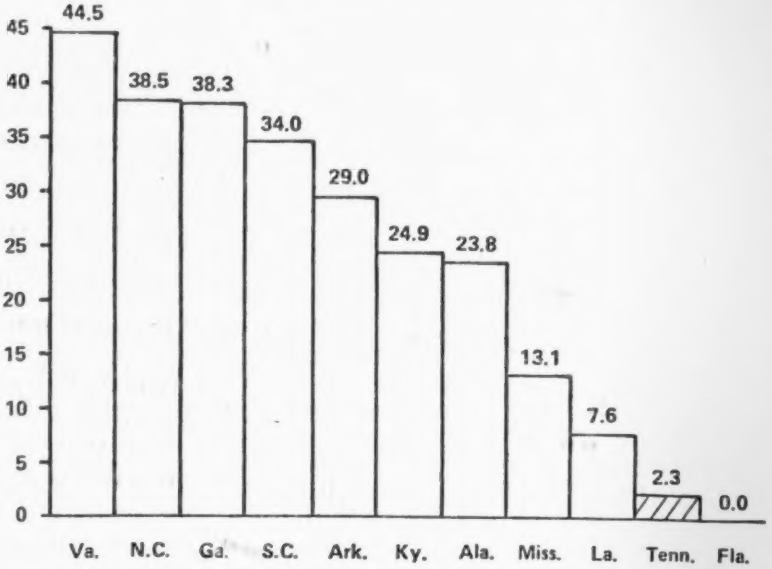
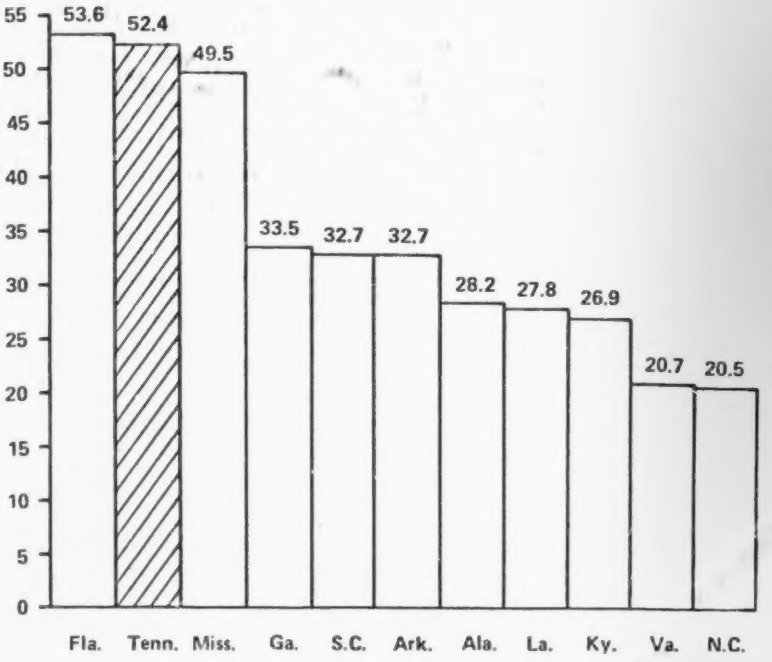


FIGURE 5

INDIVIDUAL INCOME TAX COLLECTIONS AS A PERCENT OF TOTAL TAX COLLECTIONS, SOUTHEASTERN STATES, 1983



GENERAL SALES TAX COLLECTIONS AS A PERCENT OF TOTAL TAX COLLECTIONS, SOUTHEASTERN STATES, 1983



Economic Development

Tax reform may be designed to make the Tennessee tax structure more competitive with surrounding states in order to attract business and minimize the effects of tax differentials along the borders. An important issue in firm location decisions is the business climate, which incorporates such factors as taxes, unionization, and willingness of government to cooperate with business. Tax savings themselves are a marginal factor in business location decisions, but it is desirable for the state's structure to be generally in line with those surrounding states which offer alternative sites for business firms. Corporate leaders realize taxes are necessary for providing services like education, police protection, and fire protection. They will find reasonable taxes acceptable, if they obtain an adequate return in services.

Tennessee taxes consumption more heavily than any of its border states, and each of these other states has a general income tax. High consumption taxes encourage Tennesseans living along the state borders to make their purchases outside Tennessee. Although tax differences have the greatest influence on cigarette, alcohol, and furniture purchases, they also affect other decisions. On the other hand, producers of nonretail goods and services may find it desirable to locate and work in Tennessee to avoid general state income taxes. One way to minimize these "border" affects is to avoid having a tax structure which is radically different from border states.

Raise Revenues

Those who regard the Tennessee public sector as too small would point to statistics given in earlier sections of this paper to support their contention. They might see tax reform as a way to raise revenues and therefore increase the size of government. However, neither of the committees studying taxes is doing so with the intent of raising additional revenues immediately. Both are looking at reform as restructuring the tax system by eliminating some sources and replacing them with others. Members of the committees who see tax reform as necessary generally support some or all of the previously stated four reasons as justification for restructuring.

Reform must necessarily lead to replacement of revenues which will be lost through enactment of last year's legislation which exempts food purchases from the sales tax. No legislation provided for replacement funds or, alternatively, expenditure reductions. Financing state government and new programs such as the Master Teacher Plan is not possible unless the revenue is replaced.

Restructuring aimed at the problem of inadequate revenue growth need not generate new tax dollars immediately, but it can be expected to cause greater growth in revenues over time, so more revenues would be available in the future than are available under the current tax structure. Greater natural growth in revenues will enable the legislature to enact tax rate increases less frequently. Revenues can be expected to grow more slowly than income under any conceivable plan for restructuring Tennessee taxes. Therefore, the government sector will occupy a declining share of the economy in the absence of tax rate increases. Some rate increases may still be necessary in the future if the citizens desire state government to remain approximately constant as a share of the state's economy.

ALTERNATIVES FOR TAX REFORM

Four general bases are available for taxation: income, consumption, wealth, and business production (see Table 1). Each levy used today is seeking to tax one of these bases; thus restructuring will still involve taxing one, several, or all of these bases. The difference would be that the relative use of these four bases would be altered. Determination of priorities in tax reform will decide what changes are necessary in the way each of the bases is taxed.

Numerous alternatives could be considered for changing the tax structure or introducing new taxes, but most of these (for example, a lottery) would fail to represent substantive reform. There appear to be at least two, and possibly three, alternatives which are sufficiently large to constitute real reform: a flat business tax, a general state income tax, and expansion of the sales tax base.

Flat Business Tax

The first option can be termed a flat business tax (FBT). Under the FBT each business firm would be taxed at a low uniform rate based on its contribution to the state's economic activity. The tax would be levied on all business firms without regard to the type of industrial activity or legal organization. The base would include all income generated, or production originating, in the state. It could be computed either as the sum of payments in the form of dividends, interest, payrolls profits, and rents, or as gross business receipts less purchase for resale or inclusion in manufacturing for sale.

While the tax may be confused with a general sales tax, it is not because it taxes the value of goods and services produced in the state regardless of where they are consumed, and it fails to tax consumption of goods produced outside the state. At the state level, it closely resembles a proportional income tax levied at the point of origin. That is, it taxes all income generated in the state, no matter where the recipient lives. This includes wages earned by non-Tennesseans who work in Tennessee as well as profits, interest, and rents paid to non-Tennesseans, but generated in Tennessee. It is most accurately described as a tax based on economic activity – a price paid for government services. Government becomes an active partner in the production process, providing productive public resources to each firm at a uniform price. The tax is levied at the point where the economic activity occurs.

The FBT would produce large amounts of revenue at low rates, first because the base includes all production originating in the state, and secondly, because all firms operating in the state are subject to the tax. The rate for such a tax would probably be between 1 and 2 percent.

While the FBT can be used as a replacement for less desirable levies, it is inevitable that some shifts in the distribution of tax burdens would occur. The direction and extent of redistribution depends on the level of the FBT and the particular taxes replaced. Many are recommending the tax as a replacement for other business taxes, including the corporate excise,

TABLE 1

BASES FOR TAXATION

State Economic Bases	are taxed through	Selected Potential State and Local Tax Vehicles
Income		**Payroll Tax, Income Tax, Hall Income Tax**
Consumption		**General Sales Tax, Gross Receipts Taxes, Selective Sales Taxes**
Wealth		**Real Property Tax, Personal Property Tax, Inheritance Tax, Gift Tax**
Production		**Flat Business Tax**

Under the flat business tax (FBT) each business firm would be taxed at a low uniform rate based on its contribution to the state's economic activity. The base would include all income generated or production originating in the state.

corporate franchise, gross receipts, and local personal property taxes. Other taxes could be replaced as well.

Advantages other than high productivity often claimed for the FBT are increased equity, neutrality, simplicity, and stability. The tax measures the cost of public services provided to individual firms more accurately than do the traditional sales and income taxes, and therefore it is equitable in that business firms pay for the services they utilize. The tax reduces discrimination among industries and firms with regard to production and production processes (improved neutrality). Administration and compliance costs are minimized because fewer accounting records are required, or they are already available (greater simplicity). Tax stability is improved because of the broad coverage.

General Income Tax

The general income tax is a reform often suggested for Tennessee. This tax is offered as one way to reform personal taxes, while the FBT is an approach to business tax reform. Thus, the two should not necessarily be regarded as mutually exclusive.

A wide variety of different tax rates and bases can be chosen for an income tax. An attractive possibility is to use federal adjusted gross income as the definition (base) of income for state income tax purposes. This definition eases both compliance and administration of the tax but would incorporate current federal exclusions from the gross base. As few deductions and exemptions as possible could be allowed, so that taxable income is relatively large and the tax rate can be kept low. A flat rate between 2 and 3 percent would generate enough revenue to allow the state sales tax rate to be lowered and to permit elimination of the Hall income and local personal property taxes. One difficulty with using the federal income definition is that it adopts many of the inequities in the federal system.

A general state income tax would be advantageous because it would add stability to the tax structure, as income taxes are more stable than sales taxes. An income tax would add some administrative and compliance burdens, but if it is a replacement for the Hall income and personal property taxes, the additional burden would be modest. Internal Revenue Service auditing activities could be relied upon to minimize Tennessee administrative efforts. Those who feel the Tennessee tax structure is too regressive would see an income tax as desirable because the degree of regressivity would be lessened. Nonetheless, the tax structure would remain regressive if a low-rate, proportional income tax were introduced.

Broaden the Sales Tax Base

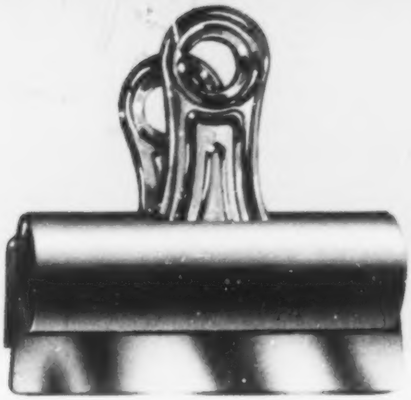
The sales tax base could also be broadened to include many categories of consumption which are not currently taxed. Candidates include legal, medical, and dental services and other currently exempt business and professional services.

Broadening of the base to include all consumption would increase sales tax stability, because overall consumption does not vary as much across the business cycle as do sales which are currently taxable. This would allow state government to have a more reliable tax source. A broader base would also be less regressive, because those categories of sales which are not currently taxable tend to be ones which are purchased most heavily by higher income individuals. The sales tax would remain regressive because higher income people have a propensity to save more.

The problem with this approach to reform is that insufficient revenues are involved to allow major changes in the tax structure. It is unlikely that the base could be broadened enough to allow even a 1 percent reduction in the state sales tax rate.

CONCLUSION

In conclusion, all evidence points to the need for a dramatic state-local tax reform in Tennessee. State-local taxes are relatively low, but they are inelastic and regressive. Business taxes are highly nonneutral. Because large sums of money are needed to do a respectable job of reform, only two viable sources of revenue are available — a comprehensive flat rate business tax, and a broad-based personal income tax. A third potential source, broadening the general sales tax base, is a less productive alternative. While a broader-base sales tax would recover revenues lost through exempting food from the sales tax base, it would not be sufficient for a general tax reform as deemed in the best interest of the state. ■



TAX REFORM: GOOD BUSINESS FOR TENNESSEE

The Honorable John T. Bragg and W. Jeff Reynolds

Tennessee taxes most people, most businesses, and most activities. But it does so through a system that lacks any rational design. State tax policy has evolved piecemeal over many years, and as a consequence the parts of the system do not always work together. In fact, some parts of the system actually work counter to each other. The end result is a system that serves no one well.

Historically, when additional revenue has been needed to maintain existing programs or to create new programs, the state has raised taxes. In certain instances, it has changed the bases of existing taxes or added entirely new taxes. In all these cases, there has been, no doubt, an attempt at fairness. But the primary concern has been to generate additional revenue.

If only a small amount of revenue is needed, the state has in some instances added "small" taxes. These small taxes cannot generate significant revenue because the base against which the tax is imposed is limited. In 1983, for example, there was a need for $4 million in additional revenue. A tax on coin-operated amusement devices was imposed. This base could never generate large revenues without being confiscatory.

Then, in 1984, there was a need for significant additional revenue to finance the "Better Schools" program. Significant revenue can come only from a large base; in this case, it came from increasing the sales tax rate.

These two recent examples illustrate the history of our tax system. We have seen a great many little changes intended to provide frequent small increases in revenues, and we have seen occasional large changes to provide large increases in revenues. It is rare to see a major change in the tax system that is not an attempt to increase revenues — *but that is what tax reform is.*

The Problem

During the early work of the Special Joint Legislative Task Force, both at its own meetings and at a statewide series of public hearings, three conclusions became clear:

1. The system is not fair to individuals
2. The system is not good for business
3. The system does not work well for government

Why has Tennessee's low tax rate not generated more business activity for the state? Perhaps it is the nature of the state's taxes rather than their level, which discourages business activity.

Each of these complaints warrants further explanation.

The Issue of Fairness

Consumption taxes, especially the sales tax, form the basis for the state tax system. In total, consumption taxes comprise nearly 75 percent of total state tax revenue. In fiscal year 1984-85, about 60 percent of state tax revenue will come from the sales tax alone.

At first glance, a sales tax would seem to be a fair tax. All people buy things and must therefore pay the tax. A sales tax appears simple because it applies to a basic activity: consumption. However, in practice, the sales tax is neither as fair nor as simple as it seems.

Because Tennessee's sales tax applies currently to basic goods such as food and clothing, the tax is regressive. Persons with lower incomes pay a larger share for these kinds of purchases than do those with higher incomes. Therefore, lower income persons pay proportionately more for sales taxes.

Many kinds of transactions are not subject to the sales tax. Purchases of medical services, legal services, and other professional services are among the items exempt. Some buyers are exempt regardless of what they purchase. Some products are exempt regardless of who buys them. Some goods or services are exempt under certain conditions or to certain buyers, and some sales are taxed at differing rates, depending on the intended use.

These exemptions and special treatments were probably enacted over the years in efforts to "be fair." Whether fairness has been achieved is debatable. What has resulted is complexity, confusion and a conviction on the part of many taxpayers that others are not paying what is fair.

Noneconomic Business Taxes

Some people contend that tax policy plays an important role in business decisions – especially those decisions about business location and/or expansion. Much of the evidence seems contrary to that contention.

Tennessee taxes are relatively low, as are the taxes of other states in the Southeast. It would seem natural, therefore, that such a factor would be attractive to businesses seeking new locations. However, Tennessee is 17th in personal income in the nation but only 44th in retail sales; Kentucky is 23rd in personal income but 32nd in sales. Why has Tennessee's low tax rate not generated more business activity for the state? Perhaps it is the nature of the state's taxes, rather than their level, which discourages business activity. The following two examples will illustrate this point.

Part of the concern of the Task Force has been with "tax leakage." Simply put, tax leakage is the loss of tax revenues to adjacent states with lower tax rates. A study made by The University of Tennessee Center for Business and Economic Research to study tax leakage in the border areas of Clarksville, Chattanooga, the Tri-Cities area, and the rural areas along the Tennessee-Kentucky border produced some interesting findings.

Results from the Clarksville study were the most dramatic. According to that study, Montgomery County (Clarksville) will probably lose $18 million in retail sales this year because of the 1 percent addition to the Tennessee sales tax rate that was passed in 1984. This revenue loss could result in a near 4 percent drop in the area's retail employment because people go to the bordering states to shop in order to avoid paying the tax.

For Tennessee, these results mean that the state will not receive as much increased revenue as hoped. Specifically, revenue will increase by one million dollars less than projections had indicated.

For Montgomery County the effect is more serious. The local sales tax rate was not changed, and the effect of the loss of retail sales is a loss of local revenues. For Montgomery County the problem is not a smaller-than-expected increase; the problem is that there will be a real loss of local revenue (perhaps as much as $400,000). That loss might mean a property tax increase.

The projected losses for Hamilton County (Chattanooga) and for the Tri-Cities area are not as large, perhaps due to some countervailing trends attracting retail sales. But the results confirm the same general pattern. Tennessee is losing retail activity, jobs, and state and local revenues to adjacent

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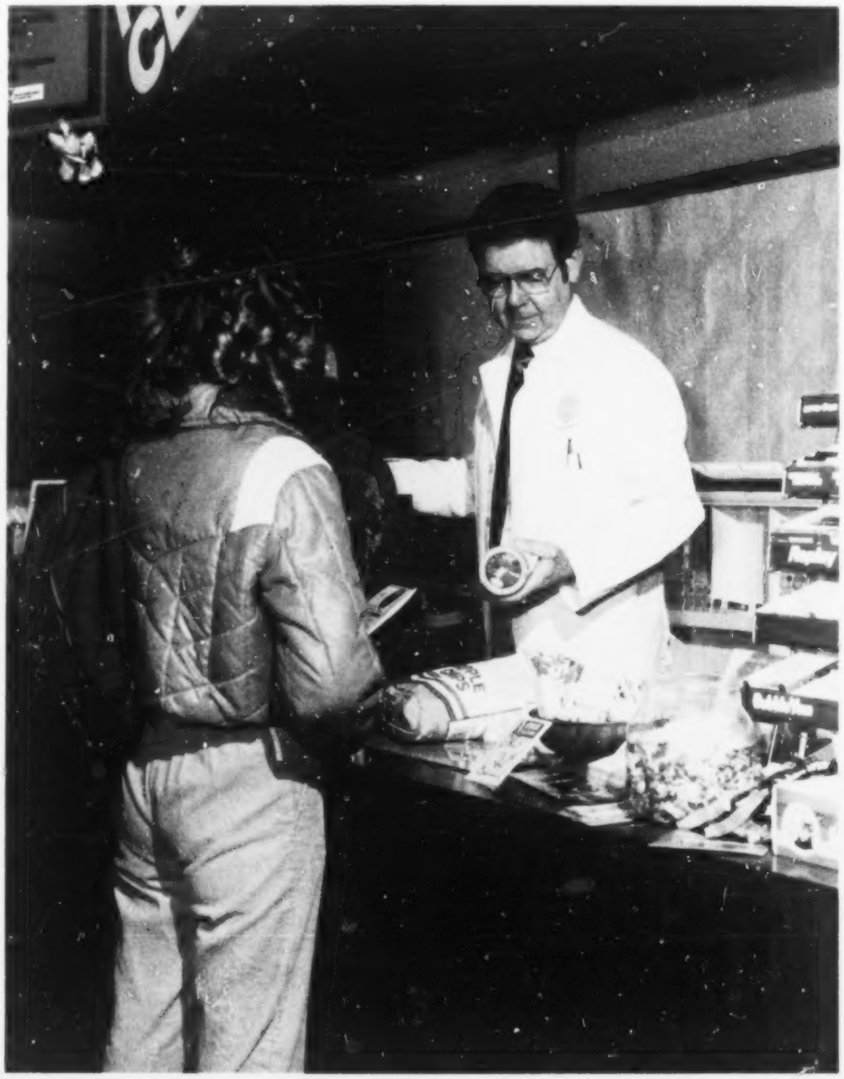
Because Tennessee's sales tax applies currently to basic goods such as food and clothing, the tax is regressive. Persons with lower incomes—must pay a larger share of their incomes for these kinds of purchases.



A Knoxville store owner totals up a customer's purchases before adding on state and local sales taxes. Consumption taxes, especially the sales tax, comprise nearly 75 percent of state revenue.

states because of the high sales tax rates. Therefore, property owners in the border counties indirectly may bear an extra burden in the state's effort to fund its educational improvement program.

A second area of major concern is business property taxes. The state constitution allows business real property to be assessed at a greater percentage of value than residential or agricultural property (40 percent rather than 25 percent). Further, the personal property of businesses is revalued annually, maintained at full market value, and assessed at 30 percent. Farm or residential personal property is, for all practical purposes, excluded from property taxation. Also, there is considerable variability among counties in how, and how well, business personal property is valued. The result is a relatively greater property tax burden for businesses – considerably more confusion.

The lesson learned from the two preceding examples should be self evident: tax reform would be good for business; tax reform would be good business for Tennessee.

The structure of taxes should be based on wealth, consumption, and on income. All who participate in society should contribute.

Performance

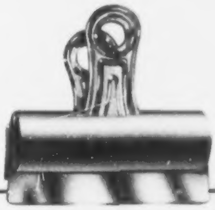
Under the current tax structure, tax increases are inevitable – not for new or expanded programs, but just to keep up. The state's tax structure is inelastic: that is, it does not grow as fast as the economy. Perhaps more important, the structure performs worst during periods of recession. Thus, under good economic conditions, revenues do not keep up; under bad times, they fall even further behind.

The problem arises because of a heavy dependence on the sales tax and other consumption taxes. As mentioned previously, the sales tax does not apply to all transactions, among them, certain services.

Thus, as the state moves from a "goods" economy to a "services" economy, the sales tax base comprises a smaller share of total spending. When the economy is growing, there is growth in the demand for government services (roads, schools, water supply, etc.). Revenues do not grow as fast.

In order for government to maintain a constant level of services, tax rates must rise. In 1983, the state's 4.5 percent sales tax generated the same amount of revenue (as a percent of personal income) as the sales tax in 1970 when the rate was 3 percent! The two sales tax rate increases (for fiscal years 1972 and 1977) kept revenues in line only with economic growth.

An even more confounding problem is the way tax revenues react to the economic cycle. When people are buying cars, appliances, and other durable goods, revenues are strong. When the economy slows, and buying slows, our revenues fall below budget estimates. During economic recessions, some demands on government services increase (for example, unemployment compensation, AFDC, and health services). And it is during these times that revenues are at their lowest.



SOLUTIONS

1. Lower some tax rates.

2. Broaden existing tax rates.

3. Tax all appropriate tax bases.

4. Reduce the number of taxes and simplify the tax system.

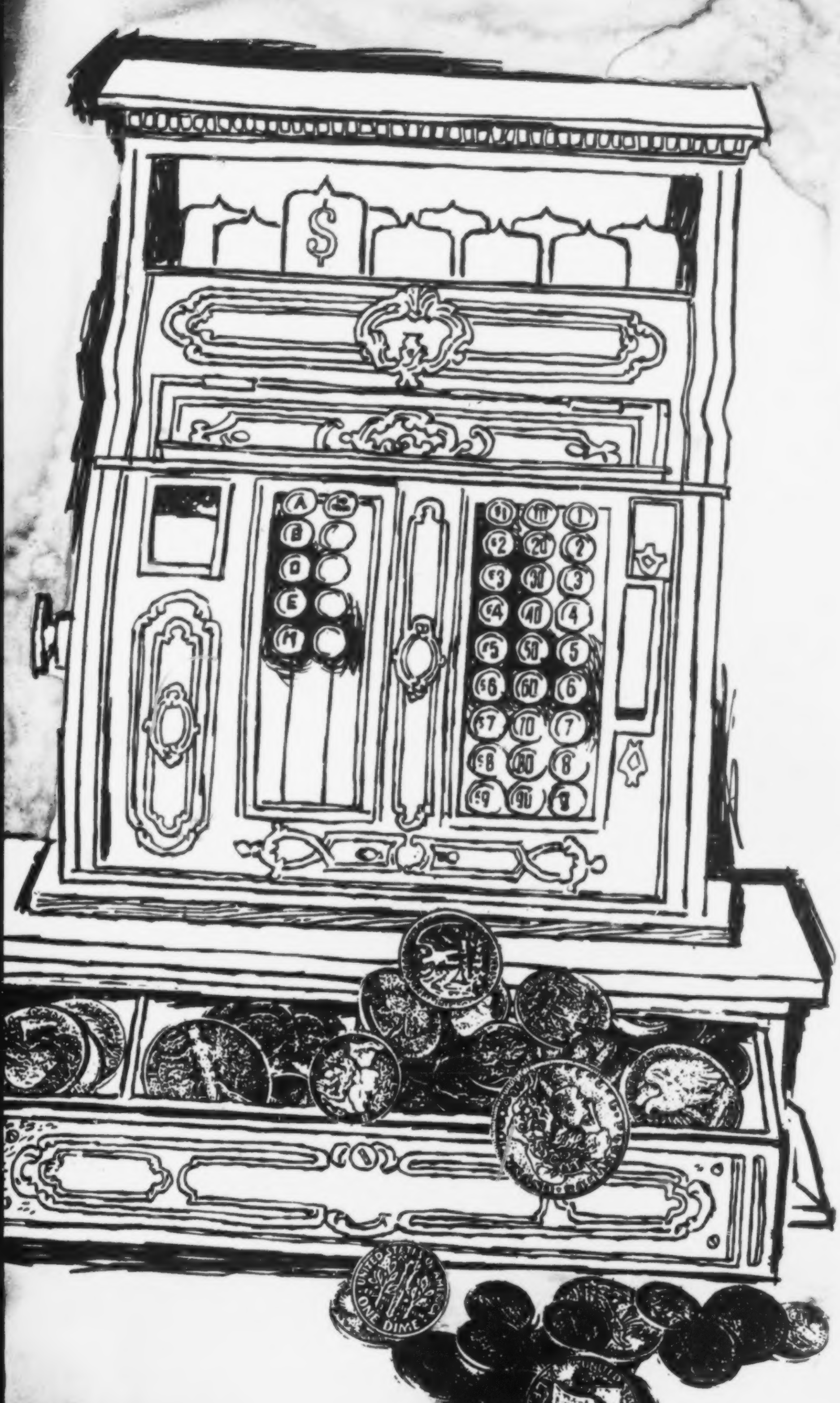
Solutions

The basic problems with Tennessee's tax structure are rather easily identified. The solutions will be harder to find. Here, nevertheless, are a few results that tax reform should direct itself toward:

1. **Lower some tax rates.** The sales tax is too high, especially as it is applied to basic necessities.
2. **Broaden existing tax bases.** The sales tax could be applied more broadly to achieve a reduction in rate.
3. **Tax all appropriate tax bases.** The structure of taxes should be based on wealth, consumption, and on income. All who participate in society should contribute to government. Those who benefit more should contribute more, if able to pay.
4. **Reduce the number of taxes and simplify the tax system.** The state taxes individual spending, ownership of property, and certain kinds of income. This is done through 14 different taxes and numerous other charges and fees. Tennessee taxes businesses based on their incomes, their profits, their worth, the value of their property, and their spending. Collections are made through at least seven taxes and numerous fees and charges. If the state wishes to discourage certain activities, they are taxed in order to make them more costly. Most taxes, however, are simply to generate revenue for government. The state should tax as simply as possible to achieve that end.

Some of these results can be accomplished by rather straightforward adjustments to the current structure: by eliminating exemptions, for example. Others might require major restructuring of the system – a personal income tax, for example.

Regardless of the difficulty in achieving reform, it must be done. The system should be fair, it should be simple, and it should perform well to benefit the state. The specific solutions will require the best efforts of elected officials and the support of the taxpayers of Tennessee. It is time for tax reform in Tennessee. ■



TAX ISSUES AND ALTERNATIVES

Stanley M. Chervin

Much of the debate on Tennessee's current tax structure centers on two problems: (1) state taxes paid by Tennessee residents are raised from predominately regressive tax sources; and (2) the business tax burden is not equally shared by all businesses.

Consumption Taxes

A major share of our state taxes is derived from, or based on, household consumption expenditures. Consumption taxes include not only the sales and use tax, but also selective state sales taxes imposed on gasoline, diesel fuel, cigarettes, beer, liquor, wine, mixed drinks, and insurance premiums. Figure 1 reflects both the dependence of Tennessee on consumption taxes (almost 76 percent of total state revenue in fiscal year 1983) and the level of similar dependence in other states. Such dependence is equaled or exceeded only by Florida, Nevada, South Dakota and Washington, all of which, by coincidence, have no broad-based personal income tax. Although the multiple tax rate and base changes passed during the last legislative session will leave the tax structure's dependence on combined sales and selective sales taxes at about the same level as in fiscal year 1983, the proportion accounted for by the sales tax will increase from 52 percent to 56 percent.

The major criticism of our state tax structure (as well as the local tax structure) is that it relies heavily on sales and selective sales taxes, almost all of which can be categorized as regressive. Since lower income families spend a higher proportion of their income on taxed goods and services than upper income families, they pay *relatively* more in taxes, but only in relation to their income. They do *not* pay more than upper income families in sales taxes and they do *not* pay most of the sales tax paid on food. The fact that they pay *relatively* more in taxes may be reason enough to criticize the sales tax and work to effect changes in it; however, misstatements do little to advance rational debate.

Business Taxes

State business taxes generally refer to the corporate franchise and excise taxes and the several gross receipts taxes which are imposed on a small list of business activities, although they are not a general tax on all businesses. Businesses in Tennessee pay other state taxes, although these taxes are not generally categorized or recognized as "business taxes." They do deserve mention since the amounts involved are substantial.

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Sales and Use Tax. This tax applies to final purchases made by businesses as well as those made by individuals. The tax is levied on business purchases of office equipment and supplies, telephone services, and energy purchases (the sales tax rate on energy sales to commercial establishments is 5.5 percent rather than the 1.5 percent which applies on sales to households and manufacturers). The data reported to the Department of Revenue do not include sufficient detail to make a firm estimate of the business sector's portion of total sales tax collections. However, based on information from other states and studies about sales taxes paid by Tennessee businesses, a range of 15 percent to 25 percent appears reasonable. Such a range implies that businesses will pay between $254 million and $424 million in state sales taxes in fiscal year 1984-85. The sales tax, therefore, is as much or more a business tax in Tennessee than the corporate excise tax (corporate income tax).

Other Business Taxes

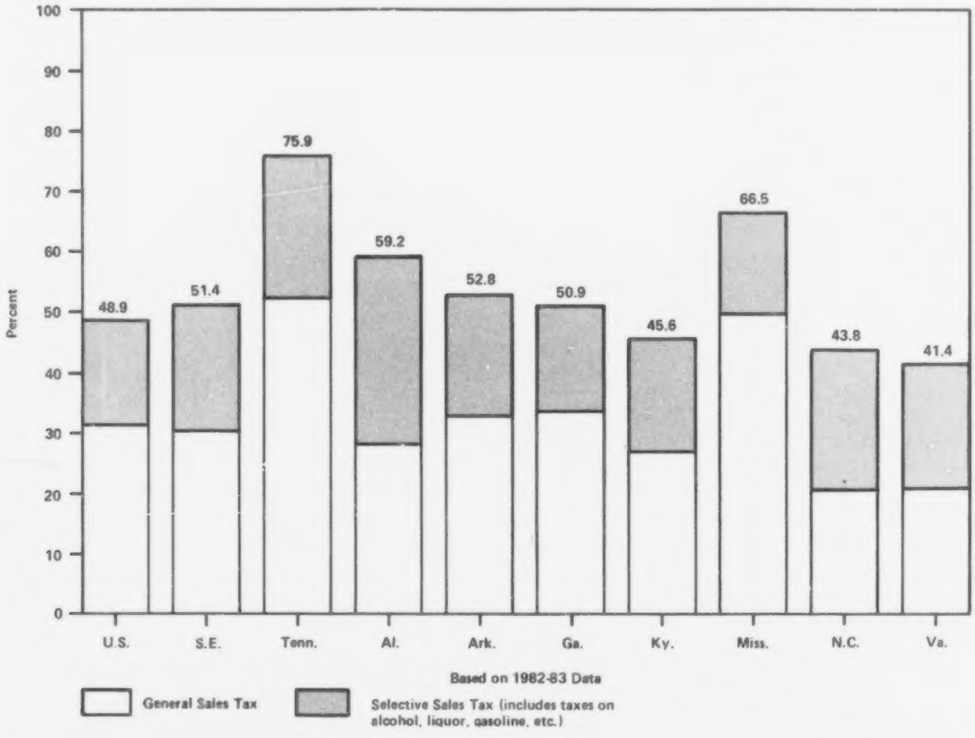
In addition to the sales and use tax, Tennessee businesses also pay a portion of other major consumption taxes. These other taxes and estimates of the business portion are as follows: Gasoline Tax, 20 percent; Special Petroleum Products Tax, 30 percent; Motor Vehicle Fuel Tax (diesel fuel), 90 percent; and Motor Vehicle Registration Fees, 40 percent.

Business Tax Considerations

Although some are debatable, certain general statements can be made regarding state taxation of business activity:

FIGURE 1

DISTRIBUTION OF STATE TAX REVENUE
SOUTHEAST STATES, THE REGION, AND US



- Classifying taxes on the basis of their initial tax incidence (on a business or on an individual) is a questionable exercise.
- The proportion of total state taxes paid directly by businesses in Tennessee appears to be in line with other southeastern states. The tax rates on the major state business taxes are generally in line with other states, although both the franchise tax and the sales tax are relatively high.
- The most glaring inequity in business taxation in Tennessee is the absence of state taxes on unincorporated businesses and the current gross receipts taxation of a small select list of business activities (bottling, telephone services, and private electric and gas distribution).
- While "business taxes" do have a certain political appeal because they appear, at first instance, to fall on an enterprise rather than on an individual, the eventual impact is to reduce the real income of some individual or individuals. In some cases, the impact will be on business owners; in others, on employees; in others, on customers; and in most cases, some combination of all three.
- The most important question regarding business taxation may be simply to insure neutral tax treatment of businesses within a state and comparable rates of business taxes vis-a-vis other neighboring states.

The Alternatives

The question of whether or not the tax structure needs a serious overhaul at this time remains very much a political issue. However, the number of viable alternatives to the existing tax structure is limited.

The following list includes taxes which are currently not utilized in Tennessee, or which are substantially underutilized, *and* which promise a potential of $50 million or more per year. Estimates refer to fiscal year 1985-86 (income tax estimates refer to calendar year tax liability). Major pros and cons for each category are included.

Broad-Based Personal Income Tax

A flat rate tax of 1 percent (with $1,000 exemptions) will generate $340 million, while a slightly progressive tax of 1, 1.5, or 2 percent will generate $500 million. Passage of a broad-based income tax should be accompanied by the repeal of the current Hall Income Tax (loss of $50 – $60 million). Forty states currently utilize a broad-based income tax in their tax structure.

- *PRO* – Capable of being used to effect a major change in the tax structure by reducing the state's dependence on sales and selective sales taxes.
- *CON* – The tax would probably be subject to a legal challenge, regardless of existing opinions that it is constitutional. The biggest obstacle still appears to be a lack of widespread public support for the concept.

Further Broadening of the Sales Tax Base to Include All Services (Not Now Taxed)

While the sales tax base was broadened in June 1984 to include amusement and recreational services, many services remain exempt. The potential from these remaining exempt services at a 5.5 percent rate is $224 million (for the state) and $81 million for local governments (at an average 2 percent rate).

- *PRO* – Broadening of sales tax base to include more services will increase the elasticity of the overall sales tax (with respect to growth in personal income) and make the sales tax slightly less regressive.
- *CON* – Political likelihood of subjecting services of physicians, dentists, lawyers, plumbers, carpenters, etc. to the sales tax is unknown (physicians account for almost 50 percent of the potential from this source). Note also that the cost of these services would increase because of the addition of the sales tax (in addition to whatever rate of inflation might be occurring).

Broaden Sales Tax to Include Gasoline and Diesel Fuel Sales

The potential from a 5.5 percent state sales tax on gasoline is $147 million. The local tax potential, at a 2 percent rate, is $54 million. The potential from a 5.5 percent state sales tax on diesel fuel is $30 million, while the local tax potential (on diesel) at a 2 percent rate is $11 million. While most states which utilize a sales tax exclude motor fuel sales from the tax base, the number of such sales has risen to eleven. The traditional opposition of highway users and road builders has slowly been countered by the need for additional revenue and the absence of any logical reason for its exclusion from a general sales tax.

- *PRO* – There is no economically valid reason for the current exemption of gasoline. Traditionally fuel has been considered a target for excise taxes which are earmarked for highway use, but the same logic has not been applied to other items subject to selective sales taxes (e.g., tobacco, liquor, wine, and beer are all subject to the sales tax).
- *CON* – Traditional opposition from special interest groups such as road contractors and truckers (in the case of diesel).

Broaden Sales Tax to Include the Lease or Rental of Real Property

The revenue potential per 1 percent rate is $12 – $14.5 million ($66 – $80 million at a 5.5 percent state rate and $24 – $29 million at an average 2 percent local rate).

- *PRO* – Substantial revenue from what will likely appear to be a tax on businesses (rather than individuals).
- *CON* – Not commonly included in a sales tax (only two states currently tax real property leases). While the tax may appear to be primarily borne by business, it will probably be pyramided into the final prices charged by affected businesses on their final sales to the public.

Impose a State Property Tax

The estimated value of all taxable property in Tennessee was $91 billion in 1982. The value for 1985 is estimated to be $98 billion. Assuming an average assessment ratio of 20 percent, the 1985 estimated assessed value of property would be approximately $20 billion. A state property tax rate of 10¢ per $100 of assessed value would raise $20 million.

- *PRO* – A relatively low tax rate could raise a substantial amount of money, and state administration of a property tax program might improve the overall consistency and uniformity of real and tangible property appraisal.
- *CON* – Local government would probably oppose an attempt by the state to use a tax which local governments consider to be their "tax." Surveys show that taxpayers consider this tax one of the worst.

Substitute a Single-Business Tax for Existing Business Taxes

Repeal of the business taxes (excise, franchise, gross receipt taxes, the local business tax and the local personal property tax) would cost about $636 million (this figure reflects the recent increase in the franchise tax rate). The tax base for a single-business tax (essentially a state value-added tax) is estimated at $46.1 billion. The tax potential at 1 percent is $461 million. A 1.4 percent rate would be required to offset the revenue loss from the business taxes listed for repeal. The rate could be further adjusted to replace revenue lost from reductions in the sales tax (if that were included as part of a tax restructuring program).

- *PRO* – This tax has some interesting conceptual selling points as long as it is not perverted (as it partially was in Michigan). The tax would go a long way toward ending the existing discrimination that now exists against corporate businesses versus sole proprietor and partnership businesses. It insures that all businesses pay for governmental services just as they now pay for other economic resources used in their operations.
- *CON* – It *is* a value-added tax. It can be argued that it favors capital-intensive businesses in contrast to labor-intensive businesses (maybe this is a plus), and its very nature has been totally or partially misunderstood by many of its opponents.

Gross Receipts Tax on Utilities

The gross receipts tax on utilities is a 1 percent tax on the intrastate receipts of businesses involved in distributing, supplying, furnishing or selling electricity, gas, telephone or telegraph services, or water and sewerage services, regardless of whether they are private or public enterprises. This tax, with no credit for other taxes paid, would generate $55 million. Repealing existing gross receipts taxes imposed on some of these activities would cost $23 million, leaving a net increase (from a 1 percent tax rate) of $32 million. A 2 percent tax rate would raise $87 million and a 3 percent tax rate, $142 million.

- *PRO* – Similar existing taxes are now imposed only on telephone and telegraph companies and a few private gas and electric companies. This change would treat all utility enterprises the same. Business would pick up at least 50 percent of the cost.
- *CON* – This tax would raise gas and electric rates (in addition to already rising telephone rates), and local public utilities would probably place full blame for rate increases on the state.

Business and Occupation Gross Receipts Tax

Business and occupation gross receipts taxes tax the dollar value of all gross receipts from sales in Tennessee by manufacturers, wholesalers, retailers, mining, and service businesses. This tax would apply to Tennessee and non-Tennessee businesses with nexus in Tennessee. The estimated tax base is $75 – $100 billion. A 5 percent tax rate would generate $500 million (assuming no deductions, exclusions, etc.).

- *PRO* – Substantial revenue potential and a tax which is applicable to all businesses regardless of the form of organization.
- *CON* – Results in a pyramid tax (manufacturer's sales to a wholesaler are taxable, the wholesaler's sales to a retailer are taxable, and the retailer's sales to the public are taxable. A substantial administrative framework would be necessary.

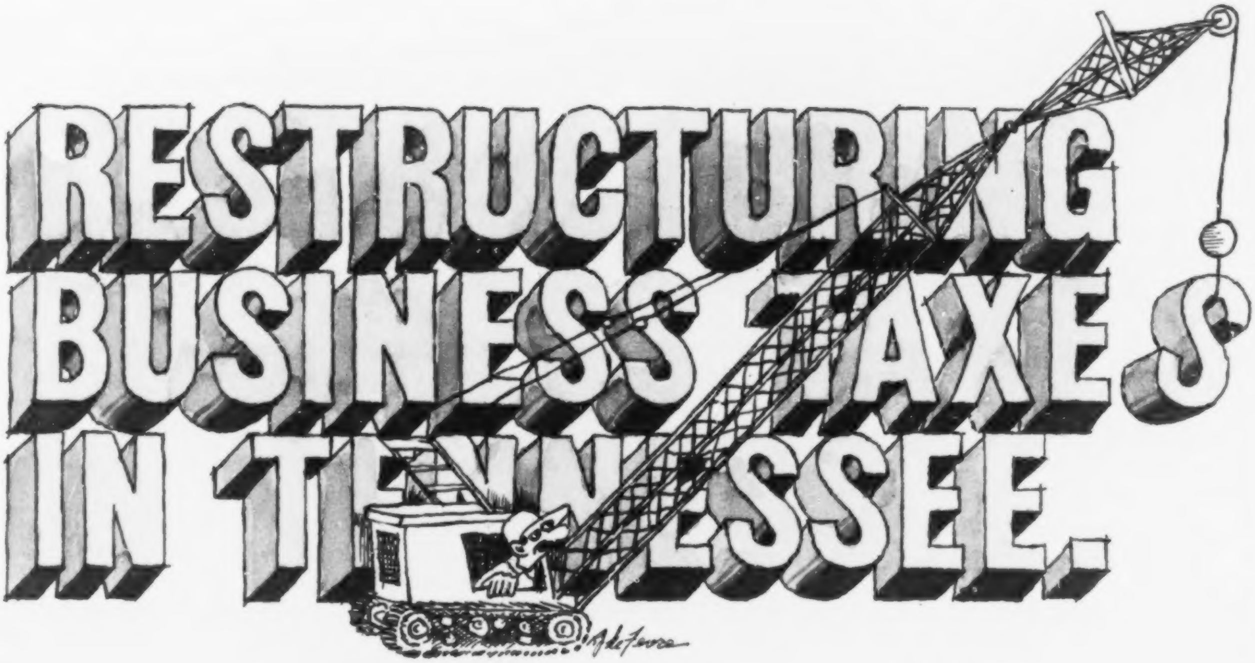
Analysis

The first logical step toward reform must be a very deliberate analysis of the existing tax structure to determine which current elements of the structure are excessively unfair to individuals and/or businesses, or simply failures as workable taxes. This step must precede consideration of alternatives, since even the alternatives have shortcomings. If certain taxes are identified as being unfair for any reason, then they are serious candidates for repeal or change. If such repeal or change will cause a significant revenue loss, the alternatives described all become potential replacements.

As replacements, they should not possess the shortcomings of the taxes being considered for repeal. This would be self-defeating. They must be true improvements or the exercise in reform will be an embarrassing failure. This does not mean that the recommended changes must be popular; if it is to be a popularity contest, the reform project at this stage would have trouble getting off the ground. The recommended changes, if any, will have to be explained to business, the public, and the press, and to be perceived as improvements before any chance of statutory change becomes possible.

In 1964, 74 percent of state tax revenue was raised from sales and selective sales taxes. The figure today is about the same. Despite the findings of several tax study committees during the last twenty years and despite many recommendations, Tennessee's state tax structure is substantially the same. Once the state decides it is ready to commit to change, alternatives are available. ■

RESTRUCTURING BUSINESS TAXES IN TENNESSEE.



Kenneth E. Quindry
and
John L. Parish

Increasingly in recent years, public finance specialists have recognized that the Tennessee state-local business tax system does not adequately serve our modern business community. Although Tennessee is supplied with an abundance of able workers and natural resources, it has not used them well, despite a seemingly responsible attitude toward economic development.

A primary reason for economic stagnation is that tax modernization has lagged tragically. The present tax structure assumed its basic form with the imposition of the general sales tax in 1947 and its extension to local governments in 1963. Not surprisingly, it has developed structural weaknesses over the two decades of rapid technological change. This is particularly true of business taxes. The legislature has regularly given its attention to encouraging economic growth through business tax incentives, but the outcome has been an overwhelming morass of credits, deductions, exemptions, and exclusions, adding to the already widespread complexities, misunderstandings, disappointments, and instances of tax evasion.

Business activity is a necessary and reasonable basis for taxation, but tax modernization has not advanced at the same rate as technological development in production. Consequently, business taxes inhibit the state's economic growth because they discriminate among methods and techniques of production and among products. Recent fragmentary modernization attempts have served only to divert attention and efforts from what is really needed – a comprehensive reform of business taxes. In this article, a restructuring plan is proposed that will effectively promote the potential for economic development by rationalizing and simplifying the business tax system.

The Goal of Tax Reform

The role of government in a society is to support business in its efforts to earn a reasonable return on its investments and the citizens in their efforts to earn a living and enjoy the benefits of their efforts. In order for government to operate as an effective partner in economic activity and growth, it must resort to taxation. Every effort must be made to encourage the growth of industries with the greatest potential to employ workers at adequate wages in the factories, mines, and shops. Proper taxation attracts business investment, the foundation of jobs, and income.

The ideal business tax system would require every firm operating in the state to pay a fair share of the costs of state and local governments in an economic and efficient way. This, precisely, is the goal of tax reform – to establish a system in which every taxpayer shares equitably according to some accepted standard of fairness. For business, this standard is to assess each business in proportion to the costs of any public services it requires or is provided. In this respect, government becomes an active partner in the production process by providing public goods and services to all businesses at a uniform and reasonable price. The consequence of nondiscriminatory taxation is the balanced development of the state's productive resources – maximum employment and income.

Objectives in Tax Reform

To achieve the maximum impact on economic development, at least four objectives of tax policy must be accomplished.

The first objective is revenue *adequacy*. Revenues must always be sufficient to meet the current cost of government. State and local budgets must be balanced annually. Business taxes should be sufficient to meet the cost of public services provided to business. Family and individual taxes should be sufficient to meet the cost of public services provided to them. Business should not be required to subsidize personal public services, nor should personal taxes be required to subsidize public services to business.

Moreover, revenues must increase over time to meet expenditure needs as the economy grows and changes and taxpayers require different and better services. The economist calls this "elasticity." Many observers would consider elasticity adequate if business taxes expanded in step with business activity. With this unitary elasticity, taxes become neither a larger nor a smaller share of private business activity. Taxes grow at the same percentage rate as economic activity. Public service levels can be maintained without any legislated tax increases.

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John L. Parish is Chairman of the Board and Chief Executive Officer of Lannom Manufacturing Company, Inc., Tullahoma. He is former commissioner of the Tennessee Department of Economic and Community Development, past chairman of the Tullahoma Regional Planning Commission, and has served on the Tullahoma Industrial Development Board.

Closely akin to elasticity is the stability of tax yield within the business cycle. Tax revenues ebb and flow with the business cycle swings. Revenue swings may be more or less violent than swings in economic activity. That is, elasticity fluctuates over the business cycle. The violent short-run fluctuations in revenue (elasticity) inhibit the government in its efforts to provide a steady flow of public services.

The second objective is *equity*. Taxpayers are not likely to object to taxes if they believe they are treated equal to other taxpayers in equal circumstances – according to some accepted standard of fairness. Possibly the most acceptable standard would be for each firm to pay only for the costs of public services it receives and for any other costs it might impose on government and the community in which it does business. Using this principle, government serves as an unbiased partner in business activity and growth. The critical problem is that of determining the proper standard for measuring individual firm consumption of public services.

The third objective is *economic efficiency*. Equity is a key element in economic efficiency. All firms and industries are equal and necessary in economic activity and growth and must be treated equally. Another key word is tax neutrality. The government should not permit tax policy to influence the direction of business investment or the use of productive resources. Neutrality permits business decisions to be made on an economic basis and leads to optimum employment of the state's workers and the use and development of capital and natural resources. By treating all productive resources, activities and processes equally, taxation reacts favorably on technological growth and worker productivity.

The fourth objective is *simplicity and economy*. In the pursuit of other worthy objectives, state and local governments have adopted several special taxes, tax credits, deductions, exclusions, and exemptions that have outlived any logical and useful purposes they might have had. All have served to complicate the tax system and cause excessive costs for both administrators and taxpayers. A simple and economic tax system would consist of a limited number of productive general taxes void of all unnecessary complexities. The taxpayer would be relieved of gathering and storing massive amounts of data and of filing numerous complex forms. Additionally, the government would not be required to receive, process, store, and audit such materials.

Many complexities in taxes arise because government attempts to utilize

By treating all productive resources, activities, and processes equally, taxation reacts favorably on the technological growth and worker productivity.

taxes to solve either real or imagined moral or social ills, or to award or punish business or individuals. These utilizations serve only to complicate the tax system and confuse tax administrators and taxpayers. If these are considered to be legitimate government objectives, they can be better fulfilled by means other than taxation or relief from taxation.

The Reform Proposals

Table 1 illustrates a program for tax restructuring which consists of five parts.

The first part is to restore or add to the sales tax certain basic elements that contribute to improved equity, productivity, stability, elasticity, and simplicity. The greatest offender in this regard is the government's recent decision to remove food for home consumption from the tax base. Not only is productivity unduly reduced, but broad avenues for tax avoidance and evasion are opened up, and the cost of administration and compliance are increased. Food and services should be in the sales tax base.

The second part is the removal of several offending taxes or provisions of taxes, including those that are nonproductive, complex, inequitable, inimical to economic growth, and/or costly for administration and compliance. Among the worst offenders are the corporation excise (income) and franchise taxes (Tennessee Code Annotated, Chapter 29), the series of selective gross receipts taxes (Chapters 41 and 42), the local business gross receipts taxes (Chapter 58), all of Title 67, and the local business personal property taxes.

The third part of the program is to provide a replacement tax to recover revenues foregone in the second part. This tax would apply equally to all business and professional firms maintaining a tax nexus in the state. It would also utilize a common tax base easily accessible to all, primarily from data gathered for federal tax purposes or readily available from current accounting records.

Government costs are created by business activity. Consequently, the

TABLE 1

RESTRUCTURING PROPOSALS IN SUMMARY

I. General Sales Taxes
  A. Terminate the current temporary one (1) percent rate
  B. Retain food for home consumption in the tax base
  C. Broaden the base to include:
    1. rental and lease of real property
    2. personal and business services not now covered
    3. vending machine sales

II. Repeal the following taxes
  A. The local business gross receipts taxes
  B. The Hall income tax
  C. The corporation franchise and excise taxes
  D. The local personal property tax
  E. Various privilege taxes
  F. The vending machine gross receipts taxes

III. Enact a flat-rate, low-rate general business tax on all business and professional firms with a taxable situs in Tennessee

IV. Provide a state-to-local revenue sharing program to retain the current division of revenue between the state and its subdivisions

V. Provide a graduated rebate program to remove the "excess" burden of sales and residential property taxes on low-income individuals and homesteads

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base most accurately reflecting tax responsibility would be measured by business activity. This base would measure total business gross sales (from federal tax forms), less cost of merchandise purchased for ingredients in manufactured articles for sale (raw materials in manufacturing and assembling), or merchandise purchased for resale (both from federal tax forms), times a ratio representing the portion of business activity in Tennessee (from current company records). Full 100 percent first-year write-off for investment and a reasonable exemption from taxation would be permitted to encourage investment and small firm startup. A low uniform rate would be applied to the tax base.

The fourth part is to construct a state-to-local revenue-sharing formula and allocate and distribute state tax funds to replace local revenues reduced by the program – most notably the local personal property taxes and the local business gross receipts taxes. In short, total government revenue reductions would be reimbursed by the state.

The fifth part is leveled at tax burdens on families and individuals. It recognizes the fact that restoring food to the sales tax base adds to an already income-regressive tax system. A rebate program for sales and residential property taxes would essentially provide for proportional tax burden on families and individuals.

The sales tax rebate portion would supplant the exemption of food from the sales tax base; and the residential property tax rebate program would supplant the current program limited to the very low-income aged and disabled *homeowners*. This proposal would serve *all* homesteads, including renters who could claim a substantial portion of their occupancy rent as an indirect property tax payment. This proposal is similar to the "circuit breaker" property tax relief program currently used in about three-fifths of the states. Rebates would be graduated according to income, so that only "excess" tax burdens would be relieved. The sales tax portion would be a graduated rebate (decreasing as household income increases) for every member of the household.

The regressivity of personal taxes is reduced . . . by broadening the sales tax base and by the sales and property tax rebate program.

This arrangement would improve tax adequacy. Tax productivity would be retained. The flat rate business tax (FBT) at a low rate would restore funds due to suggested revenue reductions. Tax elasticity would be mildly improved by shifting from consumption taxes to taxes based on economic activity. Tax stability would be improved by restoring and adding stable elements to the sales tax base and by removing taxes based on business profits.

This arrangement would improve tax equity. Business tax equity is improved by emphasizing a single nondiscriminatory tax based on public resources utilized and by removing several taxes discriminating among industries.

The regressivity of personal taxes is reduced, not by an expensive and complex sales tax exemption for food, but by broadening the sales tax base and by the sales and property tax rebate program. Tax complexities and potential avoidance and evasion are especially reduced by returning food to the sales tax base. The retention also restores productivity of the tax while regressivity is reduced by the relatively inexpensive rebate program. It is estimated that in lost revenue the rebate program would cost about 10 percent as much as that of a food tax exemption.

This arrangement would improve the economic efficiency of the tax structure. The proposals promote tax neutrality, allowing economic decisions to be made on the basis of economic decisions rather than on tax aspects. Investment and employment decisions would not be tied to decisions attempting to minimize the tax influence on rate of return.

Because investment would be treated as a current expense, new firms and firms expanding and modernizing rapidly would erase or minimize their tax liability during the years of growth. Because the first portion of sales would probably not be taxable, many small firms would be exempt. Tax filing is limited only to firms providing significant revenue.

This arrangement would simplify the tax structure. It removes several "nuisance" and low productivity taxes, and it simplifies other tax bases (e.g., the general sales tax base). The Flat Business Tax (FBT) is not only more economically efficient, but less complex for both administrators and taxpayers. Table 2 demonstrates the simplicity of an efficient flat rate business tax form.

Changes in Business Tax Burdens

The reform package is not designed to increase business tax burdens, but only to adjust tax burdens in the interests of equity, simplicity, and economic development. Burdens would be increased on some industries not now perceived as paying a fair share of taxes and reduced on others assumed to be paying excessively.

The burden distribution changes among business enterprises will depend on the extent of taxes paid under the provisions repealed and the liabilities under the new tax and tax provisions. Some firms will pay less, others more. Unincorporated businesses, which do not pay excise (income) and franchise taxes, will have limited relief. They may receive some tax relief, however, because personal property taxes, local business gross receipts taxes, and other selective sales taxes will probably be eliminated. Such businesses would be subject to the new FBT. Unincorporated professional, service, and trade businesses are in this category.

Corporations not earning a profit or limited profits will get less relief than highly profitable corporations from removal of the excise (income) tax. All will get relief from the removal of the personal property and some other taxes. All will be subject to the FBT.

Professional corporations usually manage to limit excise tax liability and do not have significant purchases of merchandise for resale to deduct from gross receipts. They are not currently subject to the general sales taxes. Their relief may seem limited because their tax responsibilities are now limited. Imposition of the new tax provisions places them on an equal basis with all other business enterprises. (The assumption is that a professional firm, incorporated or not, is a business enterprise, engaged in selling a service and small amounts of goods the same as the commonly recognized service industries on Main Street, U.S.A. In serving them the government incurs costs for which they should pay equitably with other firms. The tax will be absorbed by the firm or shifted to consumers just as any other tax by any other firm.

In short, reasonable expectations are that, in general, the burden shift may be for lower taxes on manufacturing firms and higher taxes on trade and professional enterprises and possibly on the service industry. Incorporated enterprises (depending on profitability) can expect greater relief than unincorporated businesses which are not subject to excise (income) and franchise taxes.

TABLE 2

SUGGESTED BUSINESS TAX FORM

Firm Name ______________________________

Address ______________________________

Identification No. ____________ **Principle Product** ____________

1. Gross Business Revenue (Everywhere)	**$**________
2. Costs (Everywhere)	**$**________
a. Goods for resale	**$**________
b. Raw materials in manufacturing	**$**________
c. Services	**$**________
d. Capital investment	**$**________
e. Total (a + b + c + d)	**$**________
3. Taxable Income (Everywhere) (line 1-less 2e)	**$**________
4. Allocation to Tennessee (____% of line 3)	**$**________
5. Tennessee Taxable Income (line 4 less $10,000*)	**$**________
6. Tax Liability (Rate % x line 5)	**$**________
7. Tax Carryforward from previous years	**$**________
8. Tax due (line 6-less line 7)	**$**________
9. Tax Carryforward (to future years)	**$**________

***The allowable exemption from the tax base could be another amount, e.g., $20,000, $25,000.**

Analyses

The restructured tax system would encourage economic development, employment, and income when compared with the current tax system, because it is fair and simple. It would remove the current bias against investment, productivity, and technological development, because it removes the inequities and complexities ingrained in the current tax system and replaces them with an equitable simplified tax system.

The FBT is equitable for the following reasons:

(a) It applies equitably and uniformly to all productive activity.

(b) It is levied at a uniform rate on all productive activity.

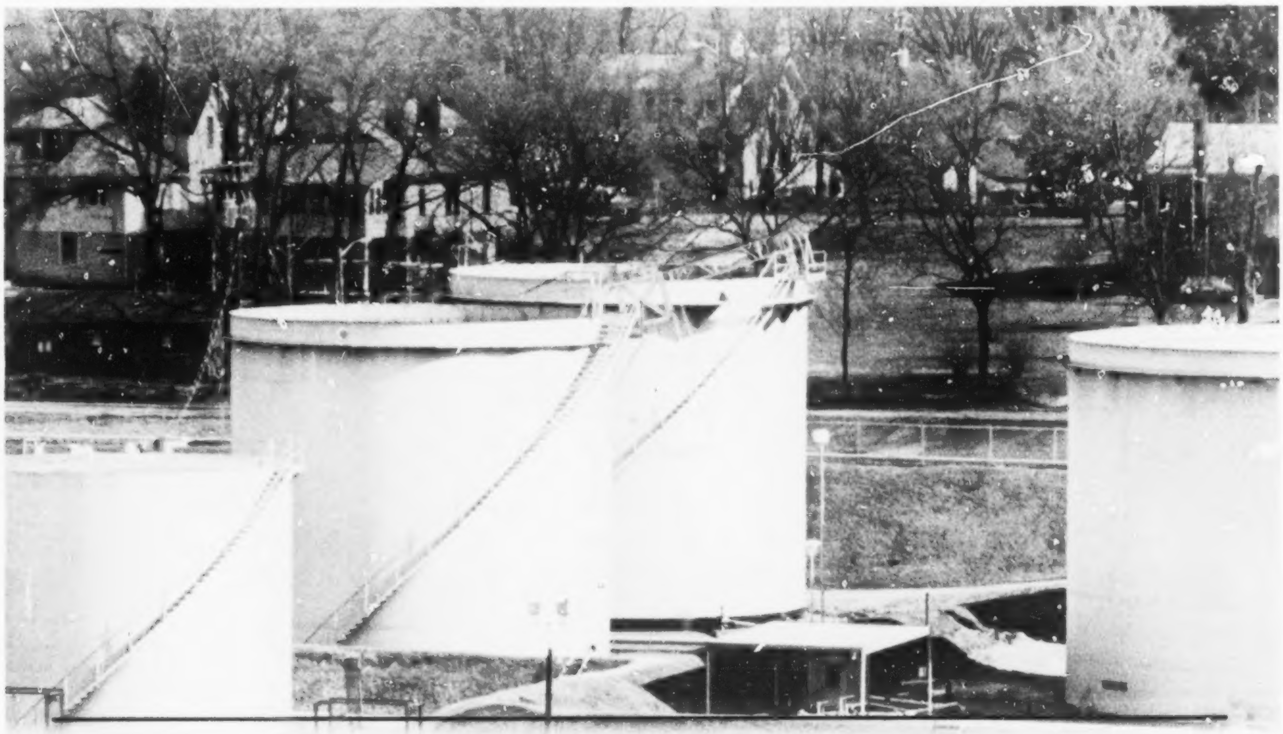
(c) It does not lend itself to extraneous uses of taxing power.

(d) It removes the opportunity for tax avoidance and evasion because the base is comprehensive and the

number of taxpayers is minimized.
(e) All business activity is taxed once and only once close to the source.

The FBT encourages new small firm development, equipment modernization, and technological growth by permitting immediate expensing (100 percent first-year write-off) of investment; removes the primary need for a personal income tax, since all economic activity (including labor compensation) is included in the base of the FBT; and improves tax elasticity and stability.

Finally, the suggested restructuring would reduce the overall cost and complexities of tax administration and compliance by concentrating the tax efforts in a few taxes that are simple, low-rate, broad-based, general, and productive. With restructuring, government tax administration bureaucracy would be reduced, and private resources engaged in tax compliance efforts would be put to productive uses. ■



THE FLAT BUSINESS TAX WOULD:

I. **Tax each firm on the basis of public services received according to its contribution to the state's economic production.**
II. **Tax all economic activity once and only once at a low rate. Eliminate double taxation.**
III. **Remove the opportunity for tax avoidance and evasion by limiting the number of taxpayers and concentrating the tax base in a single general tax.**
IV. **Tax all firms equitably on a standard base, promoting balanced economic growth — maximum employment and income.**
V. **Encourage new small firm development, modernizing of machinery and equipment, and technological change by permitting immediate expensing of investment.**
VI. **Remove the primary need for an income tax, since all personal economic activity would be taxed equitably at the source.**
VII. **Along with other reforms suggested, minimize the number of taxpayers and simplify the tax structure while maintaining the flow of state and local tax funds.**

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Dr. Stanley F. Duobinis, Assistant Professor of Economics, and Research Assistant Professor, Center for Business and Economic Research, The University of Tennessee, Knoxville.

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For More Information and Registration Materials contact: Dr. James Phillips, Assistant Director, Management Development Programs, College of Business Administration, The University of Tennessee, Knoxville, Tennessee 37996-0570, (615)974-5001; or send in the information order form at the top of the next page.

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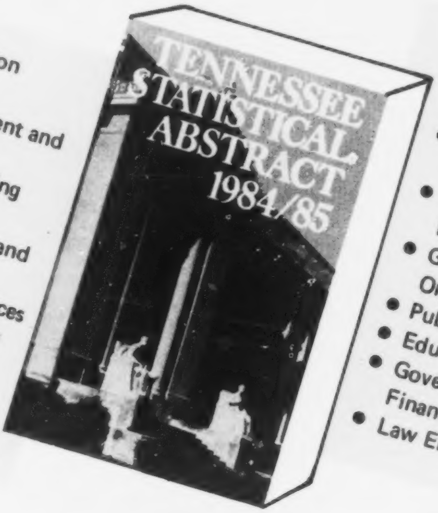

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VOLUME 20, NUMBER 2
FALL 1984

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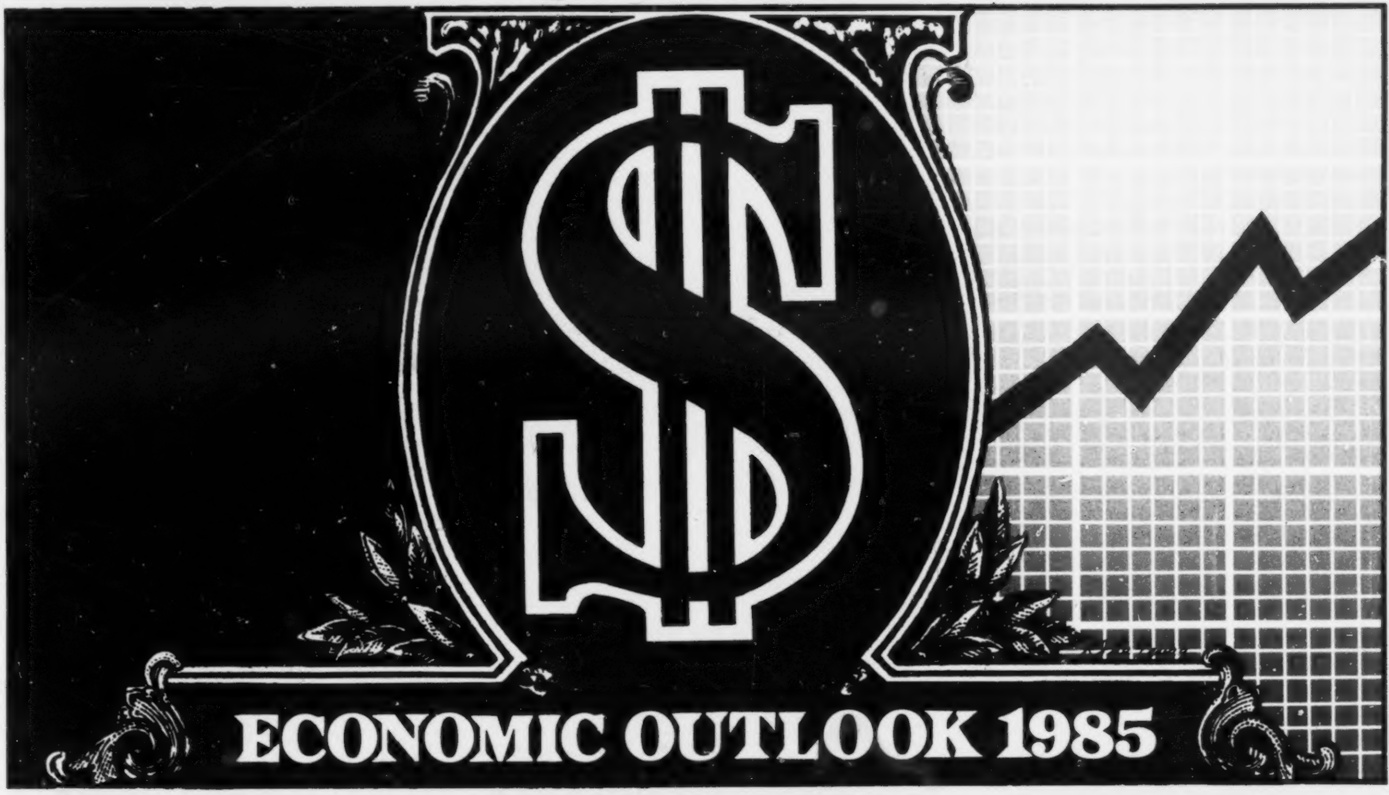

ECONOMIC OUTLOOK 1985

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5

1985 Survey of Business Attitudes

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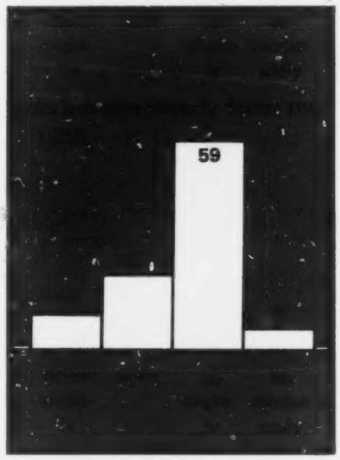
Director, CBER
Donald R. Ploch,
Professor of Sociology, UTK
Betty B. Vickers,
Research Associate, CBER



20

Economic Outlook for the U.S.

Stanley F. Duobinis,
Assistant Professor of Economics, UTK

18

1985 Panelists Comment on the State of Our State

state economy
centage
industrial sectors
taxes
Expected Performar
more optimistic
up in 1985
finance sect

26

Outlook for Tennessee

William F. Fox,
Associate Professor of Economics, UTK
and
Richard A. Hofler,
Assistant Professor of Economics, UTK

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SURVEY OF BUSINESS, The University of Tennessee, Knoxville (ISSN 0099-0973), is published quarterly by the College of Business Administration, Center for Business and Economic Research, The University of Tennessee, Knoxville. Authorization No. EOI-1490-001-83.
Back issues and article reprints may be ordered at $1.25 per copy. Address correspondence to Editor, Center for Business and Economic Research, Suite 100, Glocker Hall, The University of Tennessee, Knoxville, Knoxville, Tennessee, 37996-4170. Second class postage paid at Knoxville and Nashville, Tennessee. Requests for inclusion on mailing list and address corrections should be sent to the same address.
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An Introduction

Tennessee will continue to share in the overall economic growth I expect to continue in 1985. It will probably lag the national improvement in unemployment rates. Overall, I expect Tennessee to go as the national economy goes. Therefore, I am concerned that the size of the deficit and the lack of meaningful action to reduce the entitlement expenditures means that the current economic growth might not be sustained beyond 1985.
An East Tennessee manufacturing executive

Tennessee's economic well-being is closely tied to how well its manufacturers are faring: economic stagnation could occur in 1985 which could be long-term unless a coordinated effort is undertaken to attract new high technology industries and new service businesses. This will require a balanced tax policy, political fortitude by the leaders of both political parties, and a broad base of support within Tennessee's business community.
A Middle Tennessee retail trade executive

The remarks above were made by two of this year's 152 executive respondents from across Tennessee who comprise the 1985 Economic Outlook Panel. Their opinions make up the 16th annual Economic Outlook and Business Attitude Survey which follows the list of this year's distinguished (and diligent) panel members on the next page. Twenty-seven panelists have responded 10 or more years since the survey began.

In addition to sharing their views on the U.S. and Tennessee economies, the executives this year responded to a battery of questions dealing with a growing cause for uncertainty: the federal fiscal policy dilemma. A deficit reduction strategy unfolds in the panel's responses to these questions. In another section of our survey, key problem areas in the state economy are identified, and, concluding this year's questionnaire, the panel provided strong responses to three provocative statements on financing government and education in Tennessee and on ways to attract high tech industry.

Pages 18 and 19 feature comments of twenty-five Tennessee executives on The State of Our State. The issue concludes with an analysis and forecast for both the national and state economies adapted from the 1985 **Economic Report to the Governor**, which is published by the Tennessee State Planning Office.

Dr. Stanley F. Duobinis presents his highly readable and informative overview of the national economy on page 20, entitled "Economic Outlook for the U.S." Professor Duobinis recently joined the CBER staff from a position as senior regional economist with Chase Econometrics. He is taking over duties as director of the Tennessee Econometric Modeling Project.

On page 26, William F. Fox and Richard A. Hofler collaborate in an article analyzing the state's economy, "Outlook for Tennessee." Coauthor Fox, formerly modeling project director, and now Associate Director – Research, of CBER has followed the Tennessee economy closely for several years, with recent attention focused on fiscal and structural linkages between the state and the national economies. Drawing upon this knowledge, he helps summarize CBER's current economic forecast for Tennessee through the third quarter, 1986.

Readers interested in detailed quarterly forecasts of Tennessee's economy are invited to fill in the information request form on the inside back cover.

David A. Hake, Director
Center for Business and Economic Research

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* **Leonard J. Stack,** Vice President Operations, Emerson Electric Company, Paris

* **Carl M. Stanley,** President, Burroughs-Ross-Colville Company, McMinnville

Frederick T. Steel, Plant Manager, Goodyear Tire & Rubber Company, Union City

J. Gilbert Stein, Chairman of the Board, Stein Construction Company, Chattanooga

R. J. Sudderth, President, American National Bank & Trust Company, Chattanooga

Thomas E. Sudman, President, Sudman & Associates, Knoxville

* **William H. Swain,** Chairman of the Board and President, First National Bank, Oneida

* **Larry E. Swanson,** Plant Manager, Carrier Air Conditioning Company, McMinnville

Ray U. Tanner, President & Chief Executive Officer, Jackson National Bank, Jackson

James W. Terry, Senior Vice President, Union Planters National Bank, Jackson

† **W. Neil Thomas, Jr.,** President, Thomas, Mann & Gossett, P.C., Chattanooga

* **J. R. Thompson,** Vice President for Finance, TPI Corporation, Johnson City

Douglas P. Thurley, Plant Manager, TRW General Components Group, Ross Gear Division, Lebanon Plant, Lebanon

* **Earl H. Triplett,** President, Midland Bank & Trust, Memphis

* **Carl W. Truebe,** Plant Manager, ICI Americas, Inc., Chattanooga

T. R. Turner, Manager of External Affairs, Buckeye Cellulose Corporation, Memphis

† **John M. Upchurch,** Appraiser and Land Surveyor, Buchanan

† **Lawrence W. Whalen, Jr.,** President, The Berkline Corporation, Morristown

• **Thomas J. Whatley,** Associate Dean, Tennessee Agricultural Experiment Station, The University of Tennessee, Knoxville

Jack D. Whitfield, President, Sverdrup Technology, Inc., Tullahoma

Paulette Whitworth, Senior Vice President, First American Bank of Nashville, Nashville

• **Charles M. Wilson,** REFCO, Memphis

Thomas C. Winston, President, Erlanger Medical Center, Chattanooga

† **W. Lewis Wood, Jr.,** Senior Vice President, Allen & Hoshall, Inc., Memphis

* **Allen Zang,** President, Nashville Bridge Company, Nashville

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• These panelists have served every year for 15 or more years.

† These panelists have served 10 or more years.

* These panelists have served 5 or more years.

1985 SURVEY OF BUSINESS ATTITUDES

David A. Hake

Donald R. Ploch

Betty B. Vickers

In 1985, the major areas of concern for most Tennessee business leaders are the size of the federal deficit and its effect on interest rates and the availability of capital. State-specific issues of concern are education and tax reform. Overall the panel is guardedly optimistic about Tennessee for 1985, but they are not in agreement as to the prospects for the U.S. economy next year.

PANEL VIEWS OF THE STATE AND U.S. ECONOMY

The 1985 Outlook Panelists were asked their overall opinion of the economic prospects for the state and national economies in 1985 as compared with 1984. Results for the total panel are shown in Figure 1. A breakdown of the total panel response by geographic sector and also by broad industrial sector follows.

The executives on this year's panel are slightly more optimistic about Tennessee's outlook in 1985 compared to 1984 than they are for the U.S. economy. While nearly 70 percent of the panel expects the U.S. economy in 1985 to either remain the same or be up relative to 1984, over 80 percent of the panel shares this expectation for the Tennessee economy in 1985. Indicative of the lack of concensus among the panel relative to the U.S. economy is the fact that the distribution has two peaks. In other words, it is bimodal. Even though 51 percent of the panelists see 1985 "up" relative to 1984, a substantial minority (nearly one-third) feels the U.S. economy will be "down" in 1985 compared with 1984.

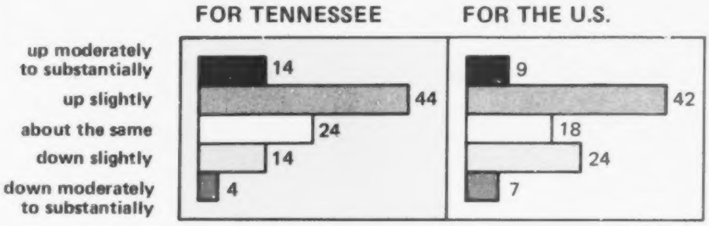
The Tennessee distribution is smoother, indicating a bit more clearly that panel optimism for the Tennessee economy continues on into 1985. About 58 percent expect the state economy to be "up" in 1985 relative to 1984, while only 18 percent expect a poorer year than 1984.

Sector Views

Figure 2 shows panel views by geographic sector. Middle Tennessee-based executives are the most optimistic, with 20 percent expecting the state economy to be up moderately or substantially in 1985 relative to 1984, while only about 10 percent of the panelists from East and West Tennessee shared this degree of optimism. The panelists from West Tennessee are more pessimistic about the total Tennessee economy in 1985 compared to 1984: 23 percent of them expect that the state will be "down" in 1985 relative to 1984, while 17 and 16 percent of Middle and East Tennessee panelists, respectively, indicate a "down" response.

The bimodality of expectation for the national economic environment is found among East and West Tennessee executives. Disagreement on direction of the U.S. economy is most dramatic in the East, with 49 percent of the panel forecasting "up in 1985 relative to 1984" and 37 percent indicating "down in 1985 compared to 1984 levels." It is clear that the current panelists recognized the national and state economic expansion in 1984 compared to 1983. In fact, last year's panel was nearly unanimous (92 percent) in its expectation that 1984 would be "up" relative to 1983. The

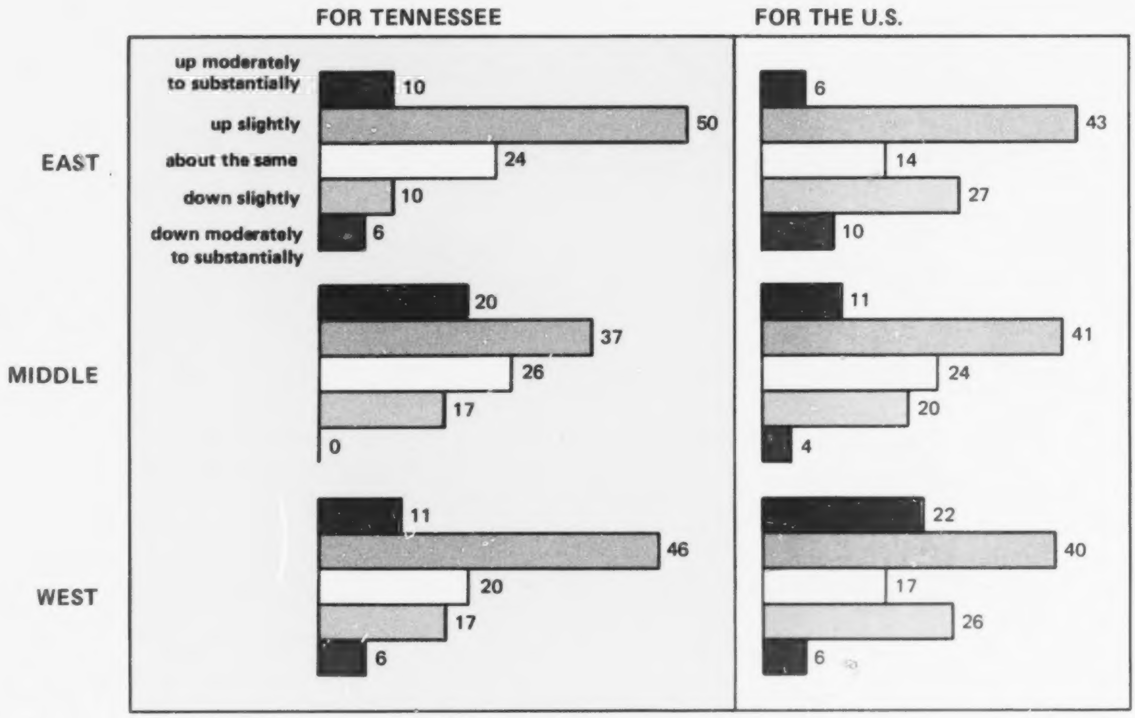
1. Panelists are more optimistic about the Tennessee economy than the U.S. economy in 1985 compared to 1984.



Note: Data shown are percentages of total panelists.

**Eighteen of the 152 responses were received too late to be included in the tabulation of data; however, many of their comments are included in the narrative portion of this article. Statistical tabulations are based on 134 responses. The geographical distribution of the panel includes 50 from East Tennessee, 48 from Middle Tennessee and 36 from West Tennessee. The business sectors are represented as follows: 13 Trade, 32 Finance, 50 Manufacturing, and 39 in a composite, or "Other", category consisting of leaders from labor, education, state and local government and the service sector.*

2. **Middle Tennessee-based executives are the most optimistic about the state economy in 1985 compared to 1984.**



Note: Data shown are percentages of panelists grouped as specified.

dramatic divergence shown in the expectations of this year's panel might be typical of responses to contradictory signals as we approach an economic plateau.

Business Sector Responses

The total 1985 Outlook Panel responses were tabulated according to broad business sectors – wholesale and retail establishments from the "Trade" sector; and Banks and Savings and Loan institutions and insurance companies from the "Finance" sector. "Manufacturers" are grouped together, and the sector termed "Other" is a composite of executives from labor, education, state and local government, and firms engaged in the provision of services.

As shown in the U.S. data in Figure 3, bimodal expectations are shared by panelists in Finance, Manufacturing and the "Other" group, with the only clear concensus view for the national economy being one for an economic plateau – "1985 will be the same as 1984" – held by 46 percent of the Trade sector members.

The most optimism for the state economy is held by the composite "Other" group, with 57 percent expressing the opinion that "Tennessee will be "up" in 1985 compared with 1984." Twenty-two percent of these panelists feel that the rise will be "moderate to substantial," while 10, 13 and 8 percent reflect similar opti-

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Betty B. Vickers, *a Research Associate at the Center for Business and Economic Research and head of the data resources group, is also editor of the* **Tennessee Statistical Abstract** *and UTK Project Director for the Tennessee State Data Center.*

mistic sentiment among manufacturers, finance and trade executives, respectively.

Though Trade executives were the least optimistic, 54 percent did feel the state economy would be "up in 1985 compared to 1984." This guarded optimism of the Trade sector is expressed by the following comments:

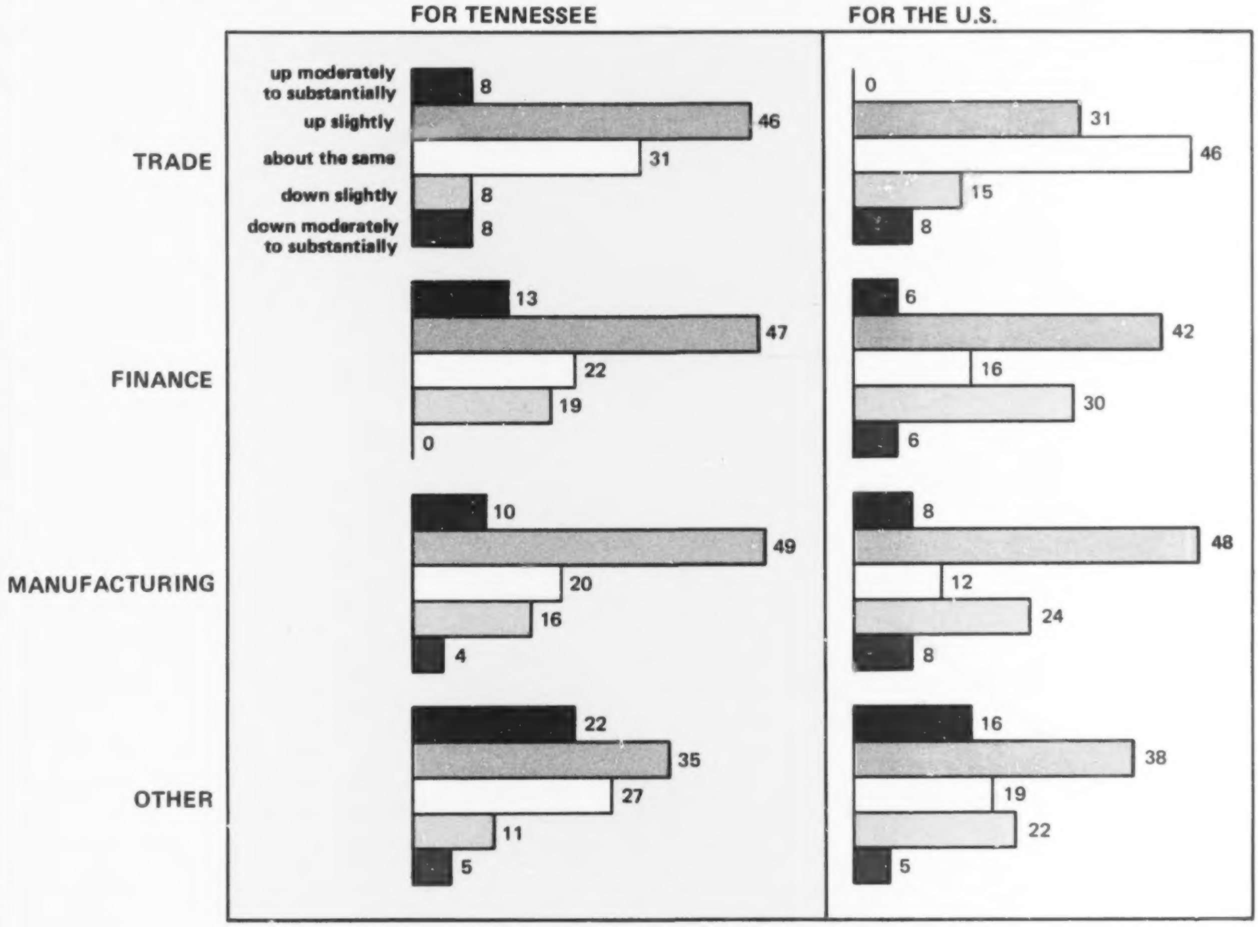
Generally, the Tennessee economy is showing considerable improvement. We are spreading our balance of jobs over more areas, which is healthy. It seems that election year economies in this country have always been good ones. I question that the 1985 economy can be a whole lot better than an election year economy; however, if interest rates *continue to decline, we could do as well or better in 1985.* **An East Tennessee Trade Executive**

There will be a cooling of the economy affecting us over a broad area. Consumer confidence could become a tremendous factor by the end of the year. **A West Tennessee Trade Executive**

KEY ECONOMIC ISSUES

Panelists were asked to review a group of 19 potential economic prob-

3. There is clear consensus across all industrial sectors that the Tennessee economy will be up in 1985 compared to 1984.



Note: Data shown are percentages of panelists grouped as specified lems and evaluate each of them for 1985 relative to their performance in 1984 as well as to select and rank what they felt to be the most critical issues facing Tennessee in 1985. Panel ranks were weighted and summed to derive the key economic issues presented here.

1. Interest Rates on Loans

Half of the 1985 Outlook panel ranked interest rates on loans among the top three economic issues, and 24 percent ranked this issue first. Moreover, interest rates have been the foremost economic issue for three of the last five years, second only to unemployment in 1983 and 1984 – a time during which Tennessee was experiencing double-digit unemployment rates.

> *Interest rates impact virtually every category listed. An adequate supply of funds is of no benefit if it is not affordable. Correction of this problem addresses itself to the federal government. Expenditures must be reduced to stimulate business further. If these measures are not sufficient to reduce the deficit, then, and only then, should taxes be increased selectively.*

> *The interest rate is a key factor in the economic outlook for any period. All factors are subordinate to the interest rate*. **Two Middle Tennessee Business Leaders**

> *We cannot meet satisfactory growth goals while the cost of capital is so high.* **A West Tennessee Manufacturing Executive**

As shown in Figure 4, sixty-nine percent of the respondents expect interest rates to remain the same or decrease in 1985 as compared to 1984. However, of the 44 percent that look for a decline in interest rates, only 6 percent think that the decrease will be more than "slight". Another 26 percent believes that there will be slight increases in the interest rate.

In geographic sector tabulations, panelists from West Tennessee express more agreement that interest rates will decrease. Sixty percent think that interest rates will decrease slightly, and 6 percent foresee moderate declines. Decreases are predicted by only 37 percent of the respondents from Middle Tennessee and 34 percent of the respondents from East Tennessee.

Many panelists specifically cite the federal deficit as a primary contributor to the problem of high interest rates.

> *For many years, I have deplored the prevailing high interest rates. They stifle economic growth, especially in the construction industry, prevent home ownership, make it almost impossible to start a new business, and suppress real estate development. I am convinced that the only way to reduce rates to a reasonable level (6-8 percent, for example) is to eliminate the federal deficit completely, and to operate thereafter with a balanced budget every year, with systematic elimination of the National Debt, and consequent elimination of the exorbitant annual expenditure for debt service.* **A Middle Tennessee Attorney**

2. Level of Unemployment

Unemployment, ranked second in importance in the 1985 Outlook, has vied with interest rates as the key economic issue for the last four years. The fact that unemployment has declined from a rate of 11.5 percent for 1983 to an average rate of 9.2 percent (not seasonally adjusted) for the first eight months of 1984 did not deter the panel from ranking it very high on their list of critical issues. Each of the economic and geographic sectors look for slight to moderate decreases in unemployment with the exception of the "Other" category, where the expected change is more dramatic. Thirty-seven percent of the "Other" category panelists thought decreases would be slight; another 37 percent, moderate; and 8 percent, substantial. This group was the most optimistic, yet 30 percent ranked unemployment as the most critical economic issue, and another 19 percent ranked it among the top three issues. These business leaders from East, Middle and West Tennessee express concern for the level of unemployment we are currently experiencing, and offer suggestions and concerns for the future.

> *Unemployment is a state and national problem caused by rapid advances in technology, making labor-intensive production uneconomical.* **An East Tennessee Construction Executive**

> *To correct unemployment, we need to provide a suitable environment of business establishments: better highways on which to receive and send merchandise, a good supply of capital for investments, a quality educational system to provide people with skills required by business.* **A Middle Tennessee Agribusiness Leader**

> *The creation of new jobs in the service industrial area – the retraining of displaced workers in new skill areas – would have the most impact upon our economy. Employment would take care of the majority of the designated problem areas. Many of the blue collar workers of yesterday will, unfortunately, never be able to regain their previous standard of living, due to ever-increasing automation and technology changes.* **A West Tennessee Business Leader**

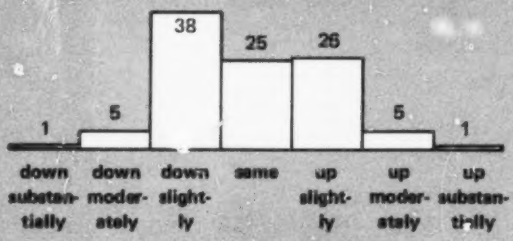
3. Supply of Skilled Workers

Closely allied to the unemployment issue is that of the scarcity of skilled workers, a problem that causes unemployment to be viewed in a new light. Moreover, both of these issues are directly responsible for much of the current emphasis on education in Tennessee. While Tennessee and the national governments are addressing the problem through the "Better Schools

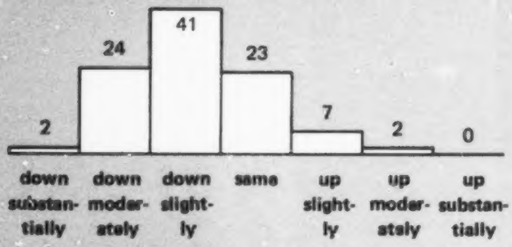
4. Ranking of Key Economic Issues in Tennessee:

Expected Performance in 1985 compared to 1984.

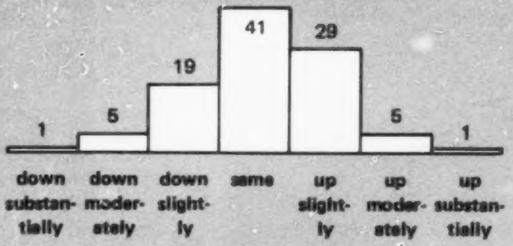
1. Panelists view interest rates as the most critical problem in 1985.



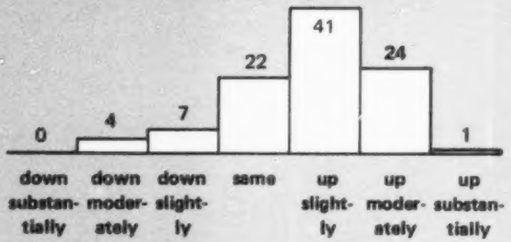
2. Unemployment has declined and is expected to decrease even more yet it is the second most critical issue.



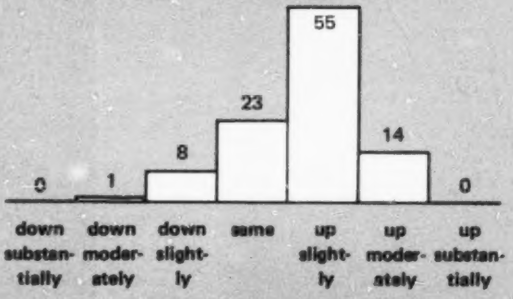
3. The supply of skilled workers is a problem that is not likely to improve greatly over the short course.



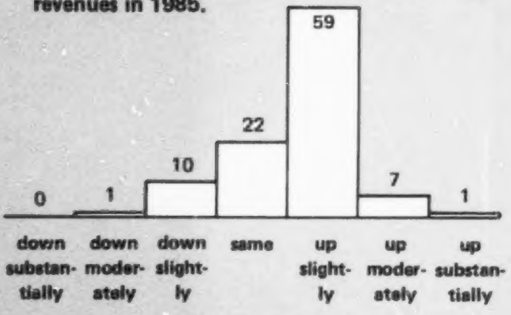
4. The expected increase in capital investment funds may not be sufficient to cover the needs of new and existing industry.



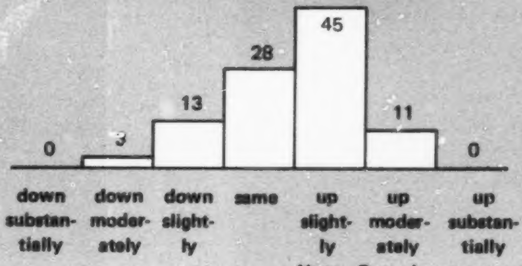
5. The cost of energy continues to trouble Tennessee business executives.



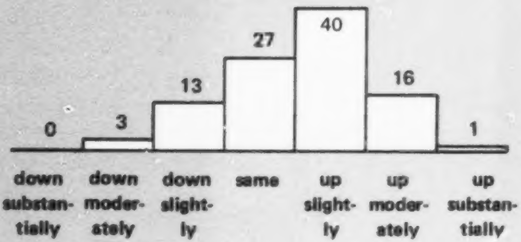
6. Business costs increase slightly faster than revenues in 1985.



7. The rate of utilization of plant capacity is not improving rapidly enough for the panel.



8. Panelists perceive that demands for wage rate increases will heighten in 1985.



Note: Data shown are percentages of total panelists.

Program" and the Jobs Training Partnership Act, the scarcity of skilled workers is a situation that is not likely to improve greatly over the short course. Thirty-five percent of the panel feels that it will improve slightly in 1985; 41 percent think it will remain the same; and 25 percent think it will worsen. This problem is compounded by the move, or the desire to move toward "high tech" industry.

> *It will take some time for our educational and training programs to bring us up to other states across the nation (not necessarily in the Southeast) and enable us to attract high tech firms or heavier industry.* **A Middle Tennessee Banker**

Manufacturers feel that all levels of our educational system need to be focused on this problem.

> *As industry grows in Tennessee, the availability of skilled workers becomes more and more of a problem. Improved public education (emphasis in science and math) is a must. More aid to four-year and two-year college students should also be a part of our improved education programs.*

> *More support for our technical schools all over the state is probably the best approach.* **Two Middle Tennessee Manufacturing Executives**

The primary concern expressed by respondents focuses on desired new industry more than on current needs. The direction in which business and government leaders feel Tennessee *must* move presents something of a paradox. The following comments are typical of responses from the 1985 Outlook Panel.

> *Scarcity of skilled workers has always been a problem in Tennessee, and the movement to high-tech . . . places even more emphasis on the weakness. One solution is through education and government efforts to encourage industry to come to Tennessee.* **A West Tennessee Finance Executive**

> *Low per capita income continues to be Tennessee's no. 1 problem. We need more income. We need to shift from the basic industrial compound to information or knowledge-based businesses. We need to shift from unskilled and semiskilled to skilled and knowledge-based jobs.* **An East Tennessee Banker**

> *The kinds of industry Tennessee needs require more abundant skilled labor than currently exists.* **A Middle Tennessee Business Leader**

4. Supply of Capital Investment Funds

Forty-six panelists ranked the supply of capital investment funds among the top five most critical economic issues. Two-thirds of the panel think that the supply of capital will increase in 1985; however, their comments indicate that they do not think it will expand enough to provide the necessary capital to counter unemployment by providing capital for new and existing industry.

> *Cost and supply of capital in Tennessee is not in keeping with a state which wants to attract technology. Too much of our investment is out of state in investment portfolio versus Tennessee loans.* **An East Tennessee Management Consultant**

Issues ranked 5 through 8, though not ranked high by the panel as a whole, were, nevertheless, viewed as critical by some.

5. Cost of Energy

> *Energy intensive industries, competing in world markets, continue to be encumbered with electric rates higher than competing plants. TVA enactment of limited interruptible service was certainly a positive step in the right direction.* **An East Tennessee Manufacturing Executive**

6. Costs Increasing Faster Than Revenues Received

> *Net profit in many businesses, small and large, is a very real problem. It is also true that cost is increasing faster than revenue; therefore I am convinced that sooner or later we must address the cost of production problem in this state and nation if we are going to be able to compete in world markets.* **A Middle Tennessee Insurance Executive**

7. Underutilization of Plant Capacity

> *Plant capacity utilization is of the utmost importance since most companies, over the last several years, have drastically increased fixed costs, including high interest rates, to finance capital equipment. Unless these costs can be covered with volume rather than price increases, we will face another surge of business failures.* **An East Tennessee Manufacturing Executive**

8. Demand for Wage-Rate Increases

> *After a relatively prosperous year for Tennessee economy and business in general throughout the state, I foresee an increasing and stronger demand for wage rate increases at levels that could reduce profit margins during 1985 over 1984 and actually slow down healthy economic growth.*

> *Some of the demand for wage rate increase is actually a result of restrictions of the two or three previous years — it is pent-up demand. This in turn can cause costs to increase faster than revenues in a given period. From a long-range point of view, it cannot*

be suppressed continually. We're going to have to begin to meet those demands where productivity and performance merit such increases. **Middle and East Tennessee Finance Executives**

A CAUSE FOR UNCERTAINTY – THE FEDERAL FISCAL POLICY DILEMMA

In another section of the 1985 Outlook questionnaire, panelists were asked a series of questions about the national economy relating to federal expenditures and federal taxation. Figure 5 was used in the questionnaire for federal fiscal years 1983 and 1985 to illustrate major categories of federal spending – defense, entitlements and domestic programs – as well as the magnitude of the federal budget deficit and the level of spending required to service the debt.

Panel's Deficit Reduction Strategy

The Outlook Panelists overwhelmingly viewed the magnitude of the federal budget deficit as a significant problem about which something should be done.

Federal Government

The panel prescription for dealing with the federal budget deficit is shown in Figure 6. Sixty percent of the panelists said they would prefer coupling moderate tax increases with relatively large expenditure cuts. Nineteen percent said they would reduce the deficit by cutting expenditures with no tax increase; another 19 percent suggested a balance between tax increases and spending cuts. While no panelist suggested "maintenance of current expenditures and an increase in taxes," 2 percent of the panel opted for "large tax increases with moderate spending cuts."

Compared to last year, the responses reveal a slight shift in favor of larger spending cuts accompanied by tax increases, but with the emphasis on spending cuts. There is virtually no difference in the percentage of respondents who favored cutting expenditures without raising taxes (20 percent in last year's survey and 19 percent in this one).

Differences among respondents from different business sectors are evident in Figure 7. Finance sector panelists overwhelmingly favor a mix of tax increases and spending cuts (97 percent). Those respondents in the "Other" category would also favor such a mix (85 percent). While panelists from Manufacturing and Trade sectors agree with this emphasis, a significantly larger percentage favors cutting expenditures without raising taxes, 28 and 31 percent, respectively.

Most panelists would approve of federal plans to cut the deficit, even if there must be slight to moderate tax increases, provided those plans accent expenditure cuts.

Federal Taxes

What taxes should the federal government raise? Outlook panelists provided this rank order:

1. consumer taxes
2. personal and corporate income taxes
3. social security taxes

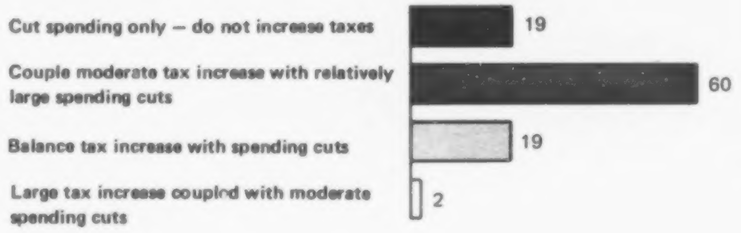
Figure 8 shows the percent of respondents choosing each of these taxes as first choice. This rank order was consistent among panelists from all business sectors, and among those from

5. Federal Receipts, Expenditures and Deficit

	Actual FY 1983		Estimated FY 1985	
Federal Budget Categories	**$ Billions**	**Percent**	**$ Billions**	**Percent**
Receipts				
Personal income taxes	$288.9	48.1	$328.4	44.1
Corporate income taxes	37.0	6.2	76.5	10.3
Consumer taxes	44.0	7.3	47.8	6.4
Social security taxes	209.0	34.8	270.7	36.3
Miscellaneous[1]	21.7	3.6	21.7	2.9
Totals	$600.6	100.0	$745.1	100.0
Expenditure				
Defense	$209.9	26.4	$272.0	29.4
Entitlements	425.6	53.5	462.2	50.0
General Government	104.7	13.1	110.4	11.9
Debt Service	89.8	11.3	116.1	12.5
Undistributed receipts[2]	(4.0)	(4.3)	(35.3)	(3.8)
Totals	$796.0	100.0	$925.5	100.0
Deficit (increase in federal debt)	(195.4)		(180.4)	

1. Miscellaneous receipts include earnings of the Federal Reserve System (about 2/3 of total), estate and gift taxes, and other smaller sources.
2. Continental Shelf royalties and employer share, employee retirement.
Source: *1984 Economic Report of the President*, **Table B-72.**

6. Panel Prescription for Dealing with the Federal Budget Deficit



Note: Data shown are percentages of total panelists.

East and Middle Tennessee. Panelists from West Tennessee deviated somewhat, citing personal income taxes as the most appropriate source for tax revenues. West Tennesseans ranked consumer taxes, corporate income taxes, and social security taxes second, third, and fourth.

Very few members of the panel would opt to raise social security taxes. Only five individuals suggest this option as the first source of new taxes, while 66 percent rank increasing these taxes only as a last resort. A near equal number, 52 percent, ranked raising consumer taxes first on their lists, while only 4 percent would raise consumer taxes as a last resort.

In general, consumer taxes get two to three times the number of first-place votes as other forms of taxation. It is of interest that West Tennessee respondents choose personal income taxes first (47 percent versus 33 percent for consumer taxes). Respondents from the financial sector choose personal income taxes almost as often as consumer taxes.

These choices must be viewed in the context of the current debate over the federal budget deficit. As shown in Figure 5, the estimated deficit for fiscal 1983 at the time the questionnaire was mailed (November 1984) was $180 billion. This is about 24 percent of the $745 billion in estimated federal revenue. To cover the deficit, federal receipts would have to expand by 24 percent. At present, personal income taxes account for 44 percent of total revenue, social security taxes account for 36 percent, corporate income taxes for 10 percent, and consumer taxes for 6 percent.

Consensus of the Outlook Panel was to give highest priority to raising consumer taxes. Historically, this option has been the most popular with citizens, business leaders and government officials. Still, these taxes account for a small amount of federal revenue (not enough to pay the federal debt service or the cost of general government). Assuming consumer taxes were the only source of new revenues, they would have to be expanded by almost four times in order to reduce the federal deficit to zero.

FEDERAL BUDGET

Next, the panel was asked to rank categories of the federal budget which should be considered first for budget cuts and next to rank areas that should be protected from budget cuts or "cut last." Figure 9 shows the 16 major categories of the federal budget. The bar chart in the figure is in two parts – the bars to the left reflect weighted averages of areas to be "cut first." Bars to the right reflect weighted averages of budget areas which should be protected from cuts or "cut last."

Highest priority for budget cuts is **foreign aid and international affairs.** This is followed by **nuclear weapons research and development** and **housing programs and other social services. Agricultural programs** rank fourth and **health and medical programs** are fifth in line for programs to "cut first."

Categories protected from reduction are first, aid to education; second, energy, general science, space, and technology; third, nuclear weapons; fourth, conventional weapons; and fifth, social security.

Concentrating on the five highest priorities, the most striking fact is the polarization of opinion about nuclear weapons research and development. This budget category ranks second among "cut first" priorities and third among "cut last" priorities. Nuclear weapons research and development is ranked first priority for "cut first" or "cut last" significantly more often than it is second or third. This pattern is different from that of other highly ranked items. This is clearly a sensitive issue.

Among panelists from different geographic areas of the state or different business sectors, there is near unanimity on the rank order of areas that should be protected from cuts or "cut last." The panel shows that there is a statewide consensus for maintaining national programs in education, in energy, and in nuclear weapons development. There is support in East and West Tennessee for conventional weapons development and in East and Middle Tennessee for social security. Among panelists from different business sectors, manufacturers are the only segment to rank conventional weapons in the top "cut last" priorities and only those in the "Other" category would omit social security from their list.

There is a greater contrast in "first cut" priorities among the different regions. Nuclear weapons, the top priority statewide, is not included in the top five in Middle Tennessee. Even so, there is a clear consensus to reduce expenditures for foreign aid, agricul-

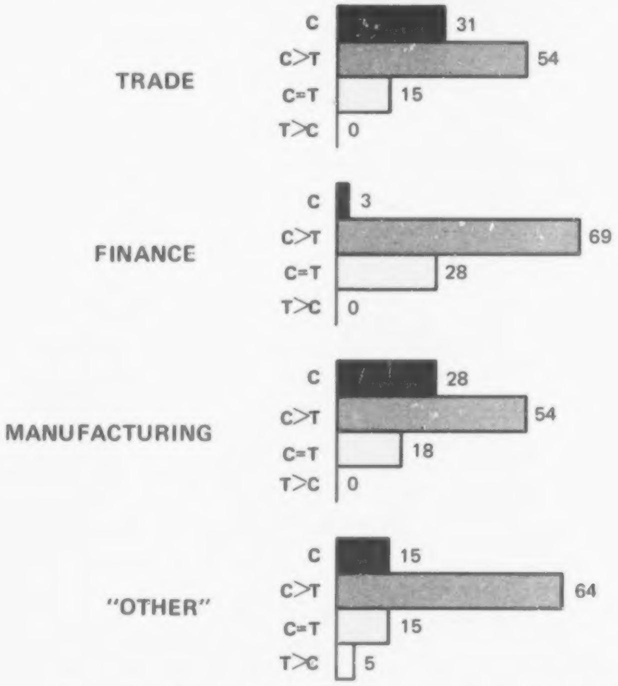
Finance sector panelists overwhelmingly favor a mix of tax increases and spending cuts.

ture, and housing programs. Middle and West Tennessee panelists would also cut overseas military expenses. East and Middle Tennesseans would cut expenses for health and medical programs. Within the various business sectors the reduction priority ranking for the first four items is unanimous. Manufacturers and those in the "Other" sector rank health and medical programs as a priority, while finance executives focused on overseas military expenditures.

TENNESSEE ISSUES

The panelists were invited to register *agreement* or *disagreement* with three statements concerning issues in Tennessee.

7. Financial sector panelists overwhelmingly prescribe a mix of tax increases and spending cuts.



Note: Data shown are percentages of panelists grouped as specified.

C ● Cut spending only – do not increase taxes.
C>T ● Couple moderate tax increase with relatively large spending cuts.
C=T ● Balance tax increase with spending cuts.
T>C ● Large tax increase coupled with moderate spending cuts.

Financing Education in Tennessee

The panel was provided the following statement:

> "With the 1984 Tennessee tax increase slated for education, we have taken care of public education and can now turn to other issues."

A tabulation of their responses is shown in Figure 10: 76 percent disagree, 16 percent agree and the rest are undecided.

The dominant theme in panelist comments on financing education in Tennessee is that money alone will not solve the problem. According to respondents, the state needs to monitor the effectiveness of what has already been done in education while pushing for additional improvements in quality.

> *Education needs to be continually monitored and improved, but not just by putting more dollars into it. Education needs to stay a number one priority, and the mission of all educational institutions should be continually evaluated.* **An East Tennessee Wholesale Trade Executive**

> *We have just begun to deal with the issue of better schools. We need to see what effect the tax increase has on quality education and look for ways to keep that quality improving.* **A Middle Tennessee Banker**

Many others agreed that it was too early to judge the effectiveness of the Better Schools Program. Constant vigilance was necessary, they said, before determining whether or not the program was effective.

Some panelists counseled that the task of improving education is never finished.

> *Public education should always be one of the most important issues to the people of Tennessee. It is through the educational environ-*

> *ment that our economic status is influenced.* **A Middle Tennessee Agribusiness Executive**

While some felt schools needed more money, others countered that the resulting increase in taxes would be harmful.

> *We are bringing education up to a more acceptable level. Additional funds will be required in the future to maintain our current programs and incorporate new programs to insure that our young people have a firm grasp of the basic skills, and that they have good teachers and facilities to move Tennessee in front.* **A West Tennessee Manufacturing Executive**

> *The quality of Tennessee education has been behind; The Better Schools Program may catch Tennessee up for today, but it won't put them ahead, and what about tomorrow? The tax increase puts Tennessee in a less competitive position to invite new industry and create new jobs for better educated Tennesseans.* **An East Tennessee Banker**

Financing Government in Tennessee

The panel was provided the following statement:

> "Apparently the 1984 Tennessee tax increase will create a surplus this year, but current legislation removes 1/3 of the sales tax from food for each of the next 3 years and the Better Schools Program has not been yet fully implemented; thus, state government financing has serious problems that must be dealt with."

Figure 11 shows a tabulation of the panel responses: 61 percent agree, 13 percent disagree and 26 percent are undecided.

Comments on financing state government were concerned with issues of tax reform, and did not show a consensus. Nevertheless, several themes were revealed. Some panelists advocate very general tax reform without specific guidelines.

> *The results of surveys over the years prove that tax reform is necessary, that property and sales taxes cannot fully meet the needs of Tennessee in the future. We must reorganize tax programs.* **A West Tennessee Banker**

Others believed that removing the sales tax from food would create a problem, some counseling that new revenues would be needed. Several advised that the tax remain on food.

> *The impact of removing the food sales tax will exceed estimates. This tax should be removed on food purchased by low income families only.* **An East Tennessee Consulting Engineer**

Some panelists remarked that the current sales tax made Tennessee businesses less competitive.

A state income tax was supported by some panelists and denounced by others.

> *. . . This statement is a ploy in the effort to get a Tennessee state income tax. We don't need that.* **A Middle Tennessee Construction Executive**

> *As politically distasteful as it may be, Tennessee must look at income taxes and broadening the business tax base.* **An East Tennessee Manufacturing Executive**

> *Tennessee must go – or permit its subdivisions to go – to a graduated income or payroll tax.* **A West Tennessee Communications Executive**

A Tennessee classroom. Many panelists believe that tax increases are necessary to insure that the state can institute new educational programs and hire first-rate teachers.

There is some evidence of cynicism and frustration in the responses. Some panelists hold the opinion that government spending is never ending. The state's ability to spend money far outstrips its ability to tax. In this environment, it is frustrating, say panelists, that government will enact programs without proper financing.

> *Any time you add more programs to be funded by tax revenues and at the same time cut taxes, problems arise with financing.* **An East Tennessee Banker**

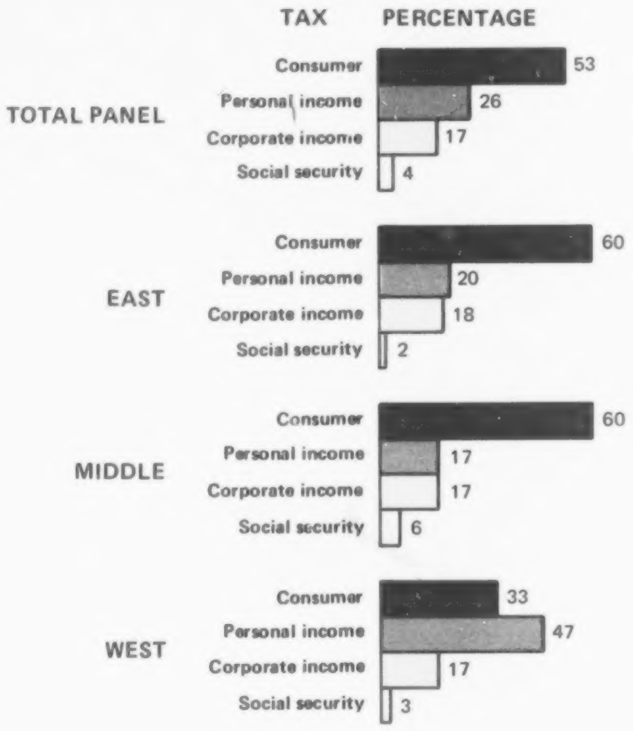
> *Apparently we increased taxes and then gave away the farm. This give and take of state government has never worked, because there is never enough to go around in the end.* **A West Tennessee Manufacturing Executive**

Attracting High Technology Industry

The panel was provided the following statement:

> "The development of high technology industries as a state economic strategy has been and is being overemphasized."

8. Percentage of Panel Choosing A Particular Tax Source as First Choice if Federal Revenue Must be Increased



A tabulation of their responses is shown in Figure 12: 55 percent disagree, 30 percent agree and the rest are undecided. Comments on high technology industry show more polarity than responses to the other items. There are strong opinions that high technology is over-emphasized and that Tennessee needs other kinds of industries.

> *I think high technology is being overemphasized everywhere – we should stick to basic industries.* **A West Tennessee Manufacturing Executive**

> *We need jobs for many people who are unskilled and undereducated, but willing to work.* **An East Tennessee Manufacturing Executive**

Others comment that attracting high tech industries cannot be overemphasized.

> *The development of high technology industry has been underemphasized and as yet is not fully understood.* **A Middle Tennessee Finance Executive**

> *Competition for such industries is intense – yet benefits are staggering.* **An East Tennessee Manufacturing Executive**

Those who support a policy that emphasizes growth in the high technology area believe it to be the wave of the future. If Tennessee is to remain competitive, it must attract high tech firms, they say. If the state is successful, it can move to the forefront in future economic growth and not be a home for declining industries.

> *'Reindustrialization' in Tennessee or in the U.S. is a pipedream of organized labor and smokestack industry leaders. Tennessee must direct its efforts toward high tech and service industries in order to provide a long-term economic growth and job development plan.* **A Middle Tennessee Retail Trade Executive**

In addition, the emphasis on high tech is linked with education and a diversified economy.

> *An emphasis on high tech will put a high priority on better educational programs and will more broadly diversify our economy, making it more recession-proof.* **A Middle Tennessee Banker**

Those who object to the emphasis on high technology repeat three themes: Tennessee must not neglect its present industry; everyone must realize there is not enough high tech industry to go around; and high tech will not provide a large volume of jobs.

> *Every state has a strategy of encouraging high tech growth. There is not enough high tech that is not highly speculative to go around. Solid industry such as Nissan is a far more stable investment of taxpayers dollars. Tennessee has diversified resources; it must have diversified industry.* **An East Tennessee Banker**

> *We are using high tech as a buzz word rather than helping existing industries.* **A Middle Tennessee Manufacturing Executive**

> *High tech industry really translates to increased productivity with fewer people doing the work. The economy will still depend primarily on conventional productivity jobs.* **An East Tennessee Retail Trade Executive**

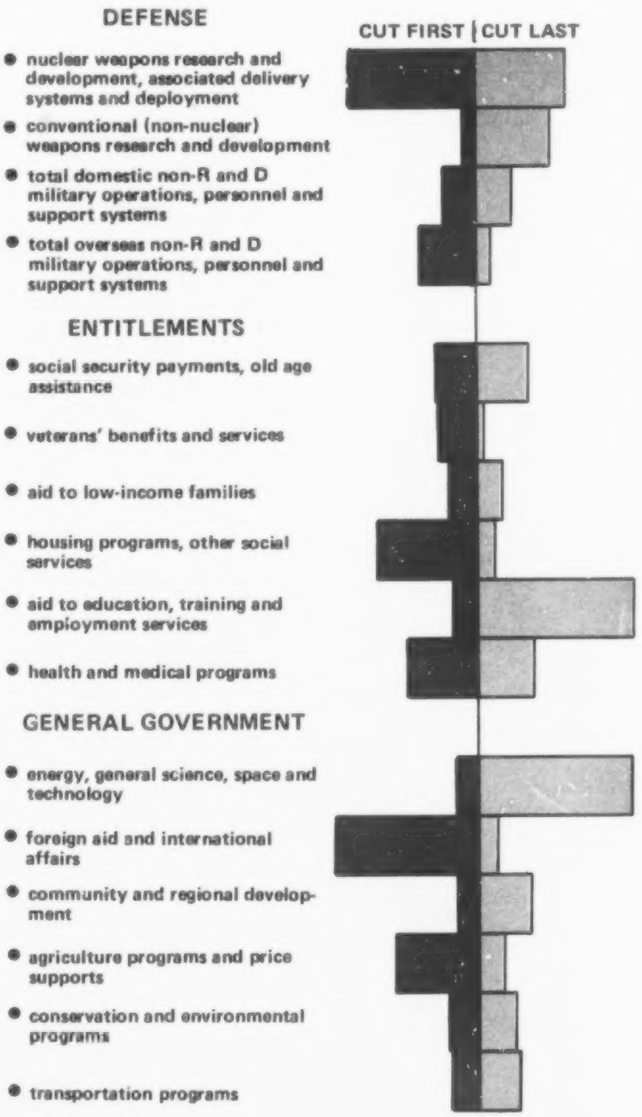
> *It will be very difficult for Tennessee to attract truly high technology industry because the state's quality of life does not compare favorably with that of Palo Alto. High tech industry should be solicited, but not to the exclusion of other industries. There are many good companies that are not high tech that can employ Tennesseans.* **A West Tennessee Business Leader**

Summary

The Outlook panel remains optimistic about both the national and state economy, though it does not expect gains in 1985 to equal those in 1984. Individual assessments of economic activity do not show a consensus, but the whole panel indicates that 1985 should be a year in which national gains of 1984 are translated into Tennessee gains in 1985.

Major forces working against the economy are the federal deficit, which the panel links to high interest rates,

9. Panel Choices for Cutting the Federal Budget



and the scarcity of capital. Both these forces reduce business activity and lead to unemployment. Another source of unemployment is the short supply of skilled workers, a problem which will worsen as the state pushes to develop high technology industry.

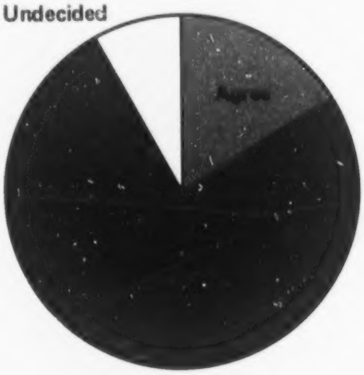
There is widespread agreement that the federal deficit is too high and that the primary mode for reducing it is through the reduction of federal outlays. The panel is more disposed to accept some increase in taxation than national leaders, either the administration or Congress, would have us believe. The panel would increase federal revenue by increasing consumer taxes. Budget cutting would be spread across the whole budget, since there is no segment that stands out as the obvious choice to cut. There is some consensus to cut overseas expenditures in both the military and civilian branches of government. There is support to protect budgets (and possibly expand them) in education as well as to support general science and technology. This is consistent with the emphasis on education and high technology industry in the state.

Nuclear weapons, a highly polarized issue, is second among priorities for reduction and third among those for protection of budget or possible expansion.

Within Tennessee there is agreement that we must watch the implementation and effectiveness of the "Better Schools Program." Public education continues to be an area of concern because it is seen as crucial for developing a skilled work force for high technology industry. There is awareness that the state must work on its fiscal policy, that state government tends to over-commit tax resources. This overcommitment leads to new rounds of taxation. Finally, while high technology industry is seen as the wave of the future, there is concern that Tennessee not ignore its present industry and that it continue to develop a balanced economy. ■

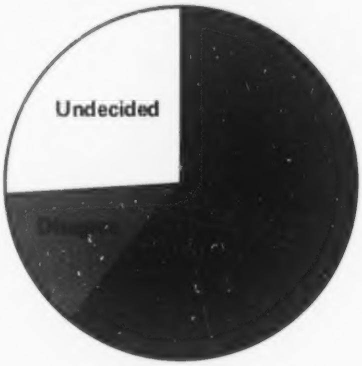
Panel Agreement or Disagreement with Three Tennessee Issues

10. FINANCING EDUCATION IN TENNESSEE



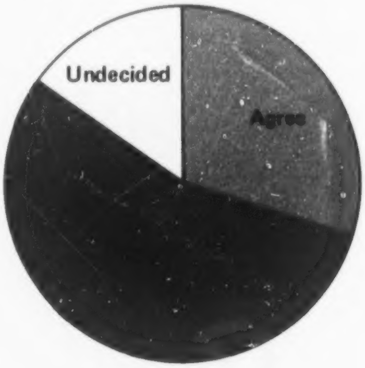
"With the 1984 Tennessee tax increase slated for education, we have taken care of public education and can now turn to other issues."

11. FINANCING GOVERNMENT IN TENNESSEE



"Apparently the 1984 Tennessee tax increase will create a surplus this year, but the sales tax will be removed from food next year and the Better Schools Program has not been fully implemented yet; thus, state government financing has serious problems that must be dealt with."

12. ATTRACTING INDUSTRY TO TENNESSEE



"The development of high technology industries as a state economic strategy has been and is being overemphasized."

1985 Panelists Comment

West:

A MANUFACTURING EXECUTIVE: My expectation of the overall Tennessee economy for 1985 is a slight softening as the year progresses, not a recession, just a slight downward movement. The identifiable areas of strength are in the diversified business and industry in the state, the sunbelt weather atmosphere and the mostly healthy political environment. Weaknesses are in the banking industry and political attitudes that cause us to commit monies while still searching for ways to increase taxes. Added or new property, sales or income taxes will only make Tennessee less attractive for business expansion or relocation.

A MANUFACTURING EXECUTIVE: I see a slowdown nationally, which will affect our state. I project continued problems in housing and further problems for agriculture. Our state needs to be more aggressive in attracting and helping develop industries (not just large companies) of all sizes and types so we can put people to work. My major concern is the effect of the national debt on interest rate and availability of capital. The major state problem is the need for tax reform.

A BANKER: The western part of our state has seen several closings and many lay-offs in recent months. However, there have been several announcements of new industries or the expansion of present industries; thus, there is a possibility of a levelling effect. I see a steady growth for West Tennessee, and a continued growth and expansion in Middle and East Tennessee which is due to the "high tech" industry that is being recruited. If the national economy stays healthy we too should enjoy a degree of good health.

A MANUFACTURING EXECUTIVE: Tennessee business activity will benefit from slightly lower interest rates. If we are to have statewide economic growth we must entice more industry to locate in our state – and we must provide a favorable climate for expansion of existing industry. However, our tax structure and educational facilities make competing with other states difficult. We have the location and the people but we need the whole package if we are to grow and expand.

A CONSULTING ENGINEER: Tennessee's overall economic outlook will improve in 1985 spurred by a continuing high level of new housing demand, consumer demands for capital goods and the availability of skilled labor and energy at reasonable rates. Some areas of weakness which will mitigate this outlook will be increased interest rates, costs rising faster than revenues and an inadequate supply of finances for construction and capital investment in the commercial/industrial sector.

A BANKER: Tennessee will fare better than the nation as a whole because of its diversity of employment and the willingness of its work force to work and to learn new skills. The major weakness may be a further erosion of industry by imports.

A TRADE ENTREPRENEUR: One of the greatest problems facing Tennessee is its inability to deal with our state's methods of receiving tax revenues. How much sales tax, gasoline tax, etc. can we require our citizens to pay without creating economic hardships on them while continuing to provide the services our government is required to provide. I see the states economic outlook good for 1985.

Middle:

A WHOLESALE TRADE EXECUTIVE: The overall outlook is good. We have been blessed with good state government under Alexander and under his leadership we have made progress in many important areas.

A BUSINESS LEADER: Nothing indicates that 1985 will be a better year than 1984. Interest rates will not retreat appreciably from current levels. Inventories are excessive across the country and an average or below Christmas season will limit expansion of plant utilization in the low wage industries on which Tennessee is largely dependent. Unions are not a major force in Tennessee. Moreover, the labor leaders are largely responsible persons who will not encourage excessive demands for wage and benefit increases. Tennessee has a Governor who understands that the state must maintain a business climate that permits it to be competitive with other Southeastern states in the recruitment of new industry and expansion of existing industry.

A MANUFACTURING EXECUTIVE: Tennessee is no longer taking a "back seat" in economic development; instead many critical key issues are being addressed. Education reform, and tax reform are bringing positive attention to the state. The Tennessee "way of life" is a plus and we are blessed geographically. In terms of new jobs, Tennessee is the fastest growing state in the S.E. This momentum will carry into 1985 and beyond. Our single biggest weakness is education and this is still our single biggest challenge. The University of Tennessee should focus on being a "World Class" Higher Education Institution – second to none.

on the State of Our State

East:

A BANKER: We will continue to see progress on all fronts with the possible exception of the agricultural sector. If that area does not rebound in the next twelve months, our entire state economy could feel the negative effects.

AN AGRIBUSINESS EXECUTIVE: Tennessee's overall economic outlook for 1985 should be the same as 1984 or up just slightly. Employment will be about the same as 1984. Tennessee's strength is that the cost of living is below that of many of the industrial states. This draws workers from the industrial states to skilled jobs offered in Tennessee. Tennessee's weakness is that it does not provide skilled employees to take skilled positions in business. Tennessee needs to upgrade its educational system to provide the skills needed in business.

AN ACCOUNTANT: Tax reform is a must. Education must carry forward at a more rapid rate. The seed we plant today will insure the Tennessee future.

AN INSURANCE EXECUTIVE: I feel our Tennessee economic outlook for 1985 is fairly good – slightly better than 1984. Its *strengths* are Geographic location, good people, and good government-business relationship. Its *weaknesses* are tax structure with too much reliance on sales tax, corrections system that will be very costly to correct (but it must be done), and, a *major, major* problem facing the entire U.S. and Tennessee, the ever increasing and unbridled cost of medical care!

A MANUFACTURING EXECUTIVE: We will fare a little better than the nation as a whole. Our economy is very dependent on the automobile and construction industries. With the prospect of lower interest rates, we could have a much better year than 1984.

A MANUFACTURING EXECUTIVE: The outlook for Tennessee's economy in 1985 appears to be good. The emphasis on quality education should encourage prospective industries to locate in Tennessee since the potential for skilled employees will be enhanced.

A BANKER: Economic activity will be down slightly but our strength will be the expected cooperation between the Legislature and the Governor's office. Working together we can overcome our problems.

A FINANCIAL CONSULTANT: I see 1985 to be a generally tough transitional period for Tennessee's economy because of a comparatively weak and uncertain banking system coupled with an eroding agricultural base. However, I see 1985 to be a year in which commitments to future economic matters will be made. The strengths lie within the synergistic effects of an ambitious population and emerging technological industries.

A GENERAL CONTRACTOR: Tennessee's overall economy should continue to improve slowly in 1985. We have strength in natural resources, a strong work ethic, excellent environment and climate, and progressively strong training and educational institutions. Opening of the Tennessee-Tombigbee route should boost transportation and distribution opportunities for Southeast Tennessee. Tennessee's greatest weakness is its tax structure. We must be competitive with other states in that all-important area.

A GOVERNMENT EXECUTIVE: The first half of 1985 ought to be good. Unless the Congress acts to reduce the deficit, a recession is likely by the second half of 1985.

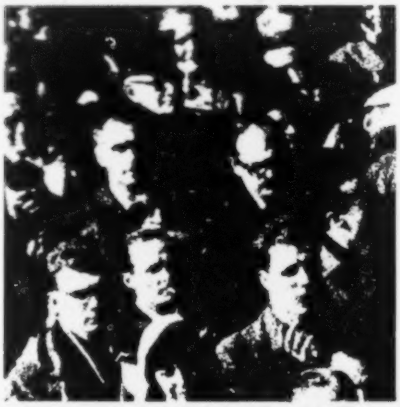
A BANKER: In general, I feel that Tennessee's overall economic outlook for 1985 is good. Certain areas of the State have high unemployment due to plant closings. A priority in economic development should be finding replacements for those closed plants. Much emphasis should be placed on developing better sewage systems throughout the State as this is essential to industrial development and the tourist industry.

AN AGRICULTURAL ECONOMIST: Tennessee's economy will be slightly improved compared to the U.S. economy. Whether existing economic growth will occur will depend to a large extent upon steps taken at the national level to reduce the size of the federal deficit.

A MANAGEMENT CONSULTANT: Tennessee has a well focused government with a business development plan and is looking to the future through better education. The technology emphasis will work. Our weakness is we don't think enough about doing business in Tennessee. We need to think Tennessee first. We need to have a better total Tennessee picture rather than operate as three grand divisions.

A CONSULTING ENGINEER: Tennessee is making great strides in attracting foreign investments. We need to continue to assist existing businesses with venture capital, and job training.

A TRANSPORTATION EXECUTIVE: We require a realistic approach to increase revenues, to improve education and transportation services, train more skilled workers, etc. The sales tax is most unfair to our large group of low income families. Business and upper income families should support a fairer share of these necessary programs.



ECONOMIC OUTLOOK FOR THE U.S.

Stanley F. Duobinis

The national scenario used in this forecast calls for a continuation of the economic expansion experienced during 1984. The economy should remain on an upswing throughout most of 1985, but the rate of expansion is expected to slow. Rising interest rates will cause credit-sensitive sectors of the economy to weaken, and a recession is forecast for early 1986. In addition to increasing interest rates, a deficit-reducing package that includes increases in both corporate and personal income taxes is expected to contribute to the decline. The forecast for real Gross National Product (GNP) calls for year-over-year average growth of 3.8 percent, and 1.1 percent during 1985 and 1986. Real GNP is expected to decline during the first two quarters of 1986.

The U.S. forecast used here was prepared by Wharton Econometric Forecasting Associates in September of 1984. Since that time, some data have been released which show a somewhat weaker third quarter performance than had been expected. Real GNP was reported to have grown by only 1.9 percent, which was slower than expected. The forecast described here is consistent with the reported growth figure, showing only a one-quarter aberration from the trend expected in 1985.

Following are specific forecasts for each of the major components of GNP: consumption, investment, net exports, and government expenditures. Each will be discussed in detail. In addition, the assumptions made regarding fiscal and monetary policy are analyzed along with forecasts for industrial production, financial markets, and prices.

Consumption

During the first half of 1984, real disposable income grew at a 7.1 percent annual pace, leading to a 6.2 percent growth in real personal consumption expenditures. However, overall, consumer spending has slowed somewhat after strong performances early in the second quarter. At this point, consumer expenditures are being constrained by rising consumer installment debt outstanding, rising interest rates, and limited supplies of some durables, especially automobiles.

Consumer spending is increasingly being financed by debt accumulation, which ties up income in interest and principal payments. The buildup in installment debt, coupled with the increase in mortgage debt, is working to reduce the potential for consumption expansion without further debt accumulation. High interest rates added to the burden of carrying accumulated debt. Thus, consumer expenditure growth is now tightly tied to income gains, and personal income growth is forecast to moderate through 1985, averaging slightly higher than 3 percent early in the year, but only 1.8 percent during the second half. This implies more moderate growth for consumption expenditures throughout the next several quarters, from 3.7 percent during the fourth quarter of 1984 to 1.7 percent during the fourth quarter of 1985. In 1986, consumer spending is forecast to see virtually no growth in the first quarter. However, by mid-1986, income growth is forecast to be more robust, and by the end of that year, consumer spending is forecast to be healthy.

Part of the slowdown in the growth of consumer expenditures has been caused by shortages of certain durable goods, especially automobiles. Recent declines in automobile sales stemmed from greatly reduced sales of imports (brought on by supply restrictions, not decreased demand.) Inventories of Japanese-made vehicles are slowly being rebuilt after their precipitous decline during the second quarter. In Germany, strikes lowered U.S. inventories significantly. Auto sales should be on the rise again once supply constraints ease.

Total automobile sales are expected to increase to a 10.7 million unit annual rate during the fourth quarter of 1984, up slightly from the 10.4 million level during the third quarter. Sales are expected to decline throughout 1985 and into 1986 as interest rates begin to rise. Sales should begin to grow again by the third quarter of 1986. Total automobile sales should be 10.6 million, 10.2 million, and 9.3 million during calendar 1984, 1985, and 1986, respectively.

As is typical in the third year following the trough of a recession, economic growth is slowing to a pace less hectic than that recorded over the last four quarters. Consumer spending is receding as the main propellant behind the expansion, and business spending is providing the impetus for continued economic growth.

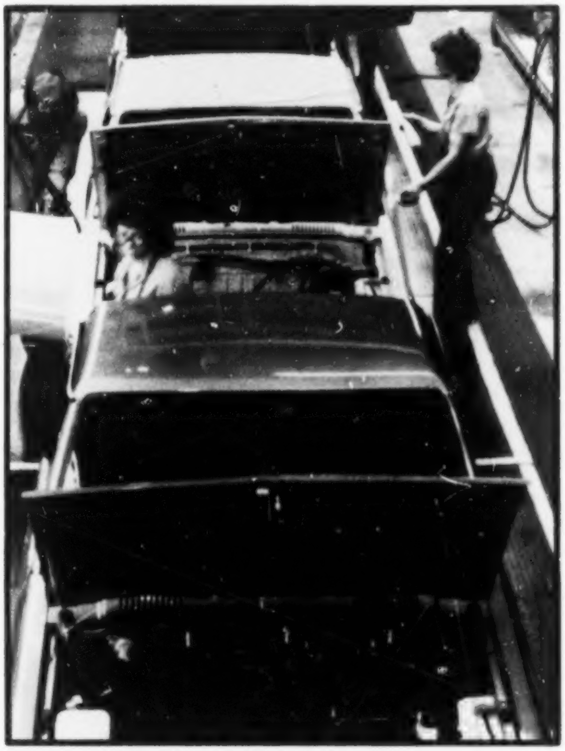
Nonresidential Investment

Real nonresidential fixed investment expanded at an annual rate of 22.8 percent during the second quarter, surpassing the first quarter pace. Based on this phenomenal growth, a 20.3 percent increase is expected for 1984, even assuming a slowdown during the second half of the year. This increase during 1984 compares favorably with the 2.5 percent growth which occurred during 1983. As in 1983, growth is expected to be paced by spending on equipment – some 71 percent of total nonresidential fixed investment.

Spending on structures soared during the second quarter, posting a gain of 25.8 percent at annual rates. When the data became available, they should show that structures spending remained strong throughout the latter part of 1984.

Capital spending has increased sooner and more strongly during the current recovery than in previous cycles. This exceptional behavior is the likely result of at least two factors. First, business has placed a continuing emphasis on cost-cutting technologies. Second, the cash flow and profits of many companies have improved considerably.

The continuing emphasis on cost-cutting innovations has caused business fixed investment to show extraordinary strength. A large part of the expenditures have been for photographic equipment (copiers), communications equipment (telephone systems), and microcomputers. In more recent months, however, spending on more traditional investment goods – trucks, machine tools, etc., has grown markedly, as companies strive to bring idled capacity back on line.



Total automobile sales are expected to increase to a 10.7 million unit annual rate during the fourth quarter of 1984. To offset economic downturns, the Nissan plant in Smyrna, Tennessee, shown here, employs a "just-in-time" inventory system intended to produce an automobile only when a prospective buyer is expected.

The 1981 tax cut added significantly to cash flow, which in turn stimulated capital spending. The current cyclical expansion has seen growth of cash flow exceeding business fixed investment at a rate almost double that which occurred over the previous seven postwar recoveries. This phenomenon suggests that the 1981 tax cut boosted cash flow sharply, relative to the historical experience, and it at least partly explains why business fixed investment bounced back so rapidly during the current cycle. It also suggests that the bounceback may not be a permanent phenomenon, as business gradually incorporates the new policy parameters into its system of expectation formation.

The sharp rise in internally generated funds stimulated the recovery of business investment in the first half of the year. After a first-quarter increase of $17.4 billion, profits from current production were up $14.0 billion in the second quarter. Both real gross output and per-unit profits rose. Profits from current production have been growing considerably more rapidly than book profits before taxes, primarily because of the inclusion of the capital consumption adjustment in the former. This adjustment was generally negative before the 1981 tax cut, but has been strongly positive since then. High profits allow firms to avoid financing capital projects in the debt market, where the cost of funds is expected to rise through 1986. But, as business conditions deteriorate in 1986, after-tax profits are projected to drop 2.8 percent. Thus, while capital spending is forecast to grow by 20.3 percent in 1984 and 10.2 percent in 1985, it should grow by only 2.9 percent during 1986.

Residential Investment

The housing market has slipped slightly from its strong position in early 1984. This is primarily attributable to increases in effective mortgage commitment rates. However, high growth rates for personal income and high levels of consumer confidence have counterbalanced the interest rate increases to a great degree. Starts are expected to decline to a 1.8 million unit annual rate in the third quarter of 1984, and to a

1.7 million unit annual rate by the end of the year. Overall, however, 1984 will be a solid year for the housing market.

The housing market is expected to continue to decline during 1985. Again, rising interest rates will be the primary cause. Interest rates on home mortgages are expected to reach 15.7 percent by the fourth quarter of 1985, bringing housing starts tumbling to a 1.5 million unit rate. After bottoming out in the first quarter of 1986, with starts plunging to 1.4 million units, the housing market is expected to expand vigorously as mortgage rates fall significantly.

The housing trough expected for the first quarter of 1986 will not be too severe – only a 26 percent decline from the 1984 peak of 1.96 million units. In 1975, the housing market saw a 59 percent decline from the 1972 peak, and in 1981, there was a 58 percent decline from the 1978 peak. The relative mildness of the expected dropoff stems primarily from financial deregulation. Although deregulation has generally caused closing rates to be a bit higher than they would otherwise be, deregulation has ensured that funds will be available to the housing market. Before deregulation, increases in interest rates implied the disintermediation of funds away from thrifts. This is no longer the case. Thus, home buyers may be price constrained as rates rise, but they will not be quantity constrained by a lack of mortgage funds, as was true prior to deregulation.

International Trade

The international trade picture continues to be dominated by a strong U.S. dollar. The dollar continued upward in the first half of 1984, and by mid-September, it had achieved record values against many currencies. Several economic factors have contributed to keeping the dollar strong throughout 1984, with no decline forecast until the second half of 1985. On an annual basis, the trade-weighted value of the dollar will rise by 10 percent in 1984 and by 4 percent in 1985, before declining by 7.5 percent in 1986.

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Nationally, the housing market has slipped slightly from its strong position in early 1984, but in Tennessee real estate has continued to expand through the recent sustained downturn.

This bullish outlook is based upon the forecast of continued large U.S. – foreign interest rate differentials. Tight U.S. monetary policy and growing credit needs are expected to keep returns on financial assets in the United States high, fueling demand for dollar-denominated assets.

The dollar is expected to remain high despite record current account deficits forecast for 1984 and 1985. Although the current account shortfall will add more than $160 billion to the supply of dollars in international markets over the 1984-85 period, the demand for dollars will match the increase, keeping the U.S. exchange rate strong.

A strong (and strengthening) dollar represents both good and bad news for the U.S. economy. On the positive side, the strong dollar is contributing to low inflation by keeping import prices down. At the same time, the foreign sector continues to hamper the current expansion. The surge in real imports slowed from a 47 percent annual rate of gain during the first quarter to 7.2 percent in the second quarter. Still, real imports are currently 26 percent above the levels they were one year ago.

Since 1981, U.S. exports have fallen by 9 percent in real terms. Much of this drop can be attributed to the world economic downturn, which caused export markets to contract, and to the strong dollar, which caused the U.S. competitive position to deteriorate. The dropoff in U.S. exports – and thus the prospects for recovery – vary by region. The largest relative decline has been in exports to Latin America, which is attributable to austerity measures in countries with large external debts. U.S. exports to Latin America will recover only when the debt crisis is resolved.

Trade prospects for other parts of the world are a bit better. Economic conditions in Europe, Japan, and Canada appear to be improving, suggesting greater U.S. exports to these areas. Some of the economic strength in these areas, however, is attributable to the recent surge in U.S. imports, and thus, growth in U.S. exports to these areas to some extent represents a secondary effect.

Thus, a narrowing of the import and export growth rate differential is necessary before the trade sector stabilizes, but large trade deficits will persist. Through 1985, the foreign sector will not show any important gains. The trade deficits will continue to grow, but not at the alarming pace seen in 1983. Although continued growth in trading partner economies will stimulate exports, high import levels – fueled by the expanding U.S. domestic economy and low import prices – will continue to dominate U.S. trade deficits.

Fiscal Policy

Both the White House and the Congressional Budget Office have published budget projections showing that even with highly optimistic economic projections, the deficit would not be lower without major progress on deficit-reduction measures. The assumptions made here regarding fiscal policy include some tax increases starting in 1986. Though these measures will make some difference, the budget deficit will remain somewhere between $150 and $200 billion.

The federal deficit is expected to grow from $164.3 billion during calendar 1984 to $199.7 billion during calendar 1986. One of the fastest growing items in the federal budget should be net interest paid, which is expected to increase from $114.3 billion during calendar year 1984 to $177 billion during calendar year 1986. The major cause of this dramatic increase is, of course, rising interest rates. As can be seen, interest payments will be almost equivalent to the size of the deficit during 1986. The detrimental effects of rising interest rates upon the deficit are clear. And, of course, the causation here is somewhat circular, since increasing credit demands by the Treasury put upward pressure on interest rates by competing with the private sector's demand for funds.

Total outlays by the Federal government are expected to be $875.7 billion, $962.0 billion, and $1,066.8 billion during calendar years 1984, 1985, and 1986, respectively. Of this amount, about one-third will be spent on goods and services – $296.5 billion in 1984, rising to $338.0 billion in 1985, and $374.1 billion in 1986. National defense expenditures will consume the major portion of these expenditures, with spending levels of $223.1 billion, $251.3 billion, and $278.5 billion during 1984, 1985, and 1986, respectively. More than one-third of total federal outlays will be devoted to transfer payments, with the largest portions going to Old Age and Survivors Disability and Health Insurance programs (OASDHI) and Medicare. The remaining total outlays will be consumed mainly by grants-in-aid and net interest.

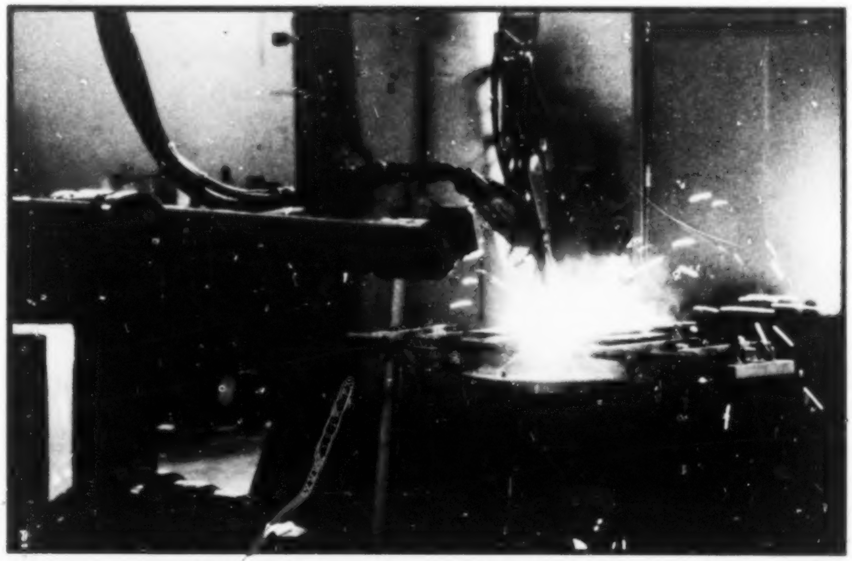
Monetary Policy

The Federal Open Market Committee (FOMC) meetings during late summer appear to have reaffirmed the three long-run goals enumerated by Federal Reserve Chairman Paul Volcker in his Humphrey-Hawkins testimony to the Senate Banking Committee. First, the target growth ranges for the monetary aggregates were left unchanged for 1984, even though M3 and nonfinancial debt are likely to exceed the top of these bounds. Second, the target ranges were reduced for M1 and M2 for 1985, although not by much. Finally, the status of M1 as an indicator of monetary policy was upgraded to bring it back to the status of M2 and M3.

Two interesting bits of information were contained in the August 24th release of minutes of the FOMC meeting. First, there seemed to be a strong inclination on the part of the FOMC to favor a tightening of monetary policy, rather than an easing of it. Second, the FOMC lowered the interim growth targets for the money aggregates for the June-September period from those of the March-June period. In fact during 1984, M1 and M2 growth were much less than the targets, and M3 was just below the target. It is unlikely that the shortfall will cause the FOMC to reverse its position and ease reserve restraint in the near term.

The Fed monitors credit demand as well as growth in the monetary aggregates, and as yet, there are no clear signs of a decrease in credit demand. Growth of nonfinancial domestic debt for June, the latest month available, was at a 12.6 percent annual rate – about the same as in each of the first six months of the year. The Fed has been looking at this aggregate as an indicator of overall credit demand in the economy, and some members of the FOMC would like to elevate it above any of the other money growth numbers. The continued demand for credit indicates that the Fed will not ease its policy, and that, in response, short-term interest rates will continue to rise.

The money supply, measured by the broad measure M2, is expected to grow by 7.0 percent, 7.0 percent, and



The foreign sector continues to hamper U.S. economic expansion. Robots such as this welding device employed by a Chattanooga firm represent one way American companies are responding to cheaper labor abroad.

7.6 percent on a year-over-year basis during 1984, 1985, and 1986, respectively. This is a bit slower than the growth in M2 of 9.3 percent, 9.5 percent, and 12.1 percent seen during 1981, 1982, and 1983, respectively. This forecast reflects the Fed's commitment to continue moderating monetary expansion to establish a policy to permit growth without reigniting the fires of inflation.

The monetary restraint expected from the Fed, combined with large federal budget deficits, will continue to impose a substantial burden on credit markets. Usually at this point in an economic recovery cycle, the federal deficit shrinks rapidly, making way for the expanding private sector credit needs of a growing economy. Instead, congestion in credit markets is building, and short-term interest rates are rising. Consumer and corporate credit demand will not grow at the high levels experienced during the past several quarters, but it will keep rising and applying upward pressure on interest rates. The three-month Treasury bill rate is projected to rise from its current level, reaching a peak during the fourth quarter of 1985, before beginning a decline during 1986. While short- and long-term rates, particularly for government securities, have declined a little recently, these declines are not expected to continue, and long-term rates are expected to follow short-term rates upward.

Industrial Production

Industrial production rose 0.9 percent in July following a similar increase in June. The gains in industrial output were broad-based, with consumer durables, business equipment, and defense goods showing the largest increases. Over the past year, industrial production has grown by 10.6 percent. Business equipment production has shown the largest gains over the past year – 18.6 percent – and it is estimated to have grown by 1.2 percent during July. These data confirm that spending by businesses on investment goods is a key factor in the continued strength of the current recovery.

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The continued strength in industrial production suggests that the long-anticipated cooling-off of economic activity has yet to be felt in the nation's industries. Nevertheless, growth in industrial production is expected to slow throughout the forecast period. From a 6.6 percent annual rate of increase during the third quarter of 1984, growth in industrial production is expected to slow to an 0.8 percent annual rate during the fourth quarter of 1985. During the first half of 1986, industrial production is expected to decline as the recession occurs. However, the second half of 1986 should see a sharp recovery, with rapid increases in industrial production. The sharpest declines and rebounds during 1986 will occur in those industries producing interest-sensitive goods, such as large consumer durable items and industrial machinery. Some nondurable industries will also see sharp swings in activity, particularly those industries tied to the housing market.

Prices

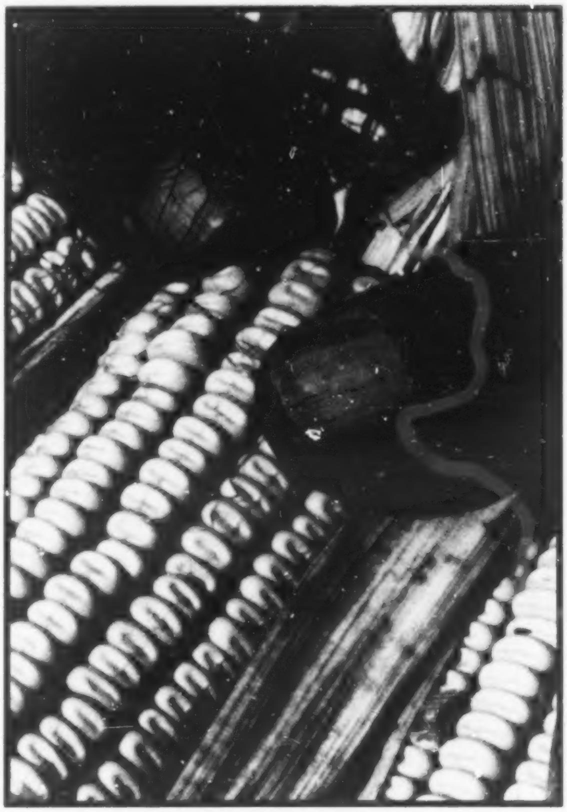
Since the beginning of 1984, most measures of inflation have been rising at annual rates under 4 percent. No large upward surge is anticipated during the coming months, since there is a strong foundation for price stability. Unit labor costs fell in the second quarter and are expected to post only modest gains over the next year. The strong dollar has helped keep down import prices and has forced U.S. producers to lower their prices in order to compete.

For the U.S., the consumer price index is expected to increase on a year-over-year basis by 4.2, 4.4, and 5.6 percent during 1984, 1985, and 1986, respectively. In Tennessee nondurable goods categories such as eating and drinking places, food stores, and other retail operations and services will remain more stable than durable goods throughout the forecast period.

Commodity prices are showing virtually no increases at all. Weak commodity prices have started a new trend in consumer inflation. The low cost of international commodities, which has resulted in part from the strong dollar, has depressed prices for items such as apparel, food and beverages, and energy. This has caused a divergence between the cost of goods and the cost of services, since services do not directly compete with imports and are less price-disciplined by the strong dollar. Over the past six months, for example, all commodities that enter into the consumer price index have increased at an annual rate of only 1.5 percent, while services that enter into the consumer price index have increased at a 5.7 percent annual rate.

Output per-worker hour in the nonfarm business sector showed its eighth consecutive quarterly increase during the second quarter of 1984. This is the longest period of uninterrupted growth since the 1971-73 period. The 3.9 percent rate of increase in nonfarm business compensation during the second quarter, combined with the 4.7 percent productivity jump, led to a 0.9 percent drop in unit labor costs. Unit labor costs have not increased much during the recovery, gaining only 1.4 percent in 1983, yet this is the first decline since the second quarter of last year. The slowdown in unit labor costs bodes well for holding down future inflation. For the economy as a whole, moderate wage gains should combine with steady productivity growth to prevent any major escalation in unit labor costs, and this will dampen cost-push pressures on the economy. Unit labor costs are expected to increase by 1.3 percent, 2.7 percent, and 5.3 percent during 1984, 1985, and 1986, respectively.

The inflation rate may rise somewhat as labor markets tighten, as the rate of capacity utilization increases, and as other demand-pull pressures begin to appear. Inflation is expected to be running at about a 4 percent annual pace by the end of this year, and at no more than a 6 percent pace by the end of next year. The consumer price index is expected to increase on a year-over-year basis by 4.2 percent, 4.4 percent, and 5.6 percent during 1984, 1985, and 1986, respectively. At the same time, the personal consumption deflator will increase by 3.0 percent, 4.2 percent, and 5.4 percent during 1984, 1985, and 1986, respectively.



The low cost of international commodities has depressed prices for items such as apparel, food and beverages, and energy. In Tennessee growth in agricultural output, jobs, wages and salaries will trail state averages for other industries.

Employment

The two major employment measures, the household survey and the establishment survey, have shown contrary movements in recent months. The establishment survey reported the number of employees on nonagricultural payrolls as growing steadily from June to October. This indicator has shown steady growth in employment since early 1983. The household survey, on the other hand, showed employment declining by 350,000 in July and 426,000 in August, after seasonal adjustment, followed by increases of 270,000 in September and 347,000 in October.

Since the unemployment rate is calculated using the household survey, it jumped 0.4 percent to 7.5 percent in July, but declined to 7.4 percent in September, where it remained into October.

The fact that the two major surveys showed movements in opposite directions gives support to the idea that the jump in the unemployment rate was just an aberration and that it was not a meaningful shift in labor markets.

Both surveys do agree on the dramatic gains in employment that have occurred during this recovery. The household survey shows gains of 6.6 million workers, and the establishment survey shows an increase of 6.5 million jobs.

The outlook for the U.S. economy described above leads to a forecast which shows establishment employment growing through the first quarter of 1986, but at a steadily decreasing rate. The second quarter of 1986 should see a small drop in employment, with growth returning the third quarter. The declines in manufacturing employment during 1986 are expected to occur slightly earlier and to be a bit more severe than those for the remaining sectors.

Employment is expected to decline during the first three quarters of 1986 before rebounding sharply during the fourth quarter. As a result, the unemployment rate is expected to slowly decrease to 6.2 percent during the fourth quarter of 1985 and to increase during the first three quarters of 1986, reaching a peak of 7.2 percent during the third quarter. ■

OUTLOOK FOR TENNESSEE

WILLIAM F. FOX AND RICHARD A. HOFLER

The Tennessee Economy

The Tennessee economy is but one component of the national and international economy. Constant economic interaction with other states and nations means that economic cycles within Tennessee are substantially determined by events which occur beyond the state's borders. Tennesseans purchase goods and services originating outside the state and, in turn, they produce goods and services which are utilized elsewhere. The incomes Tennesseans receive, whether they be in the form of salaries, interest, or dividends, often come from outside the state, while non-Tennesseans are paid salaries and other incomes for work performed in Tennessee.

Because of these close linkages, the Tennessee economy will expand and contract with the national economy, but not necesarily to the same degree, since the structures of the two economies are different. Knowledge of where the national economy is headed helps economists understand how Tennessee will perform. But it does not tell the entire story.

More Manufacturing Jobs

The major distinction between the nation's economy and the state's arises in the shares of jobs in service versus goods-producing industries. (The distribution of nonagricultural jobs in Tennessee and the United States is illustrated in Figure 1.) The goods-producing sector includes manufacturing, mining, and construction, while important components of the service-producing sector include services, trade, and finance, insurance, and real estate.

Tennessee's share of mining and construction jobs is slightly lower than the U.S. average. But manufacturing employment, at 27.3 percent of the total, is considerably higher. The employment share for durable goods industries is identical, so the difference arises solely in nondurable goods industries. The apparel, textiles, and chemical production industries are particularly large in Tennessee.

Tennessee's service-producing sectors, meanwhile, fall below national averages. The most striking difference is in the individual sector called services, which includes both personal and business-related services along with health care, accounting, and the legal professions. Tennessee has 18.7 percent of its employment in this category, versus 21.8 percent for the U.S. as a whole. The finance, insurance, and real estate sector is just over three-fourths what it is across the U.S.

These service-producing sectors are the areas where the U.S. is growing most rapidly. So, it is vital that Tennessee increase the number of jobs in these same areas if the state's economy is to grow as fast or faster than the U.S.

As it stands, the concentration of employment in manufacturing causes the Tennessee economy to be relatively cyclical; that is, economic activity in Tennessee swings more widely than in the U.S. As shown in Figure 2, the percentage growth in Tennessee real gross state product swings much wider across business cycles than the percentage growth in U.S. real gross national product.

Cyclical Factors

The relatively cyclical nature of the Tennessee economy does not appear to be changing, even though the percentage of manufacturing employment in the state has been declining. For example,

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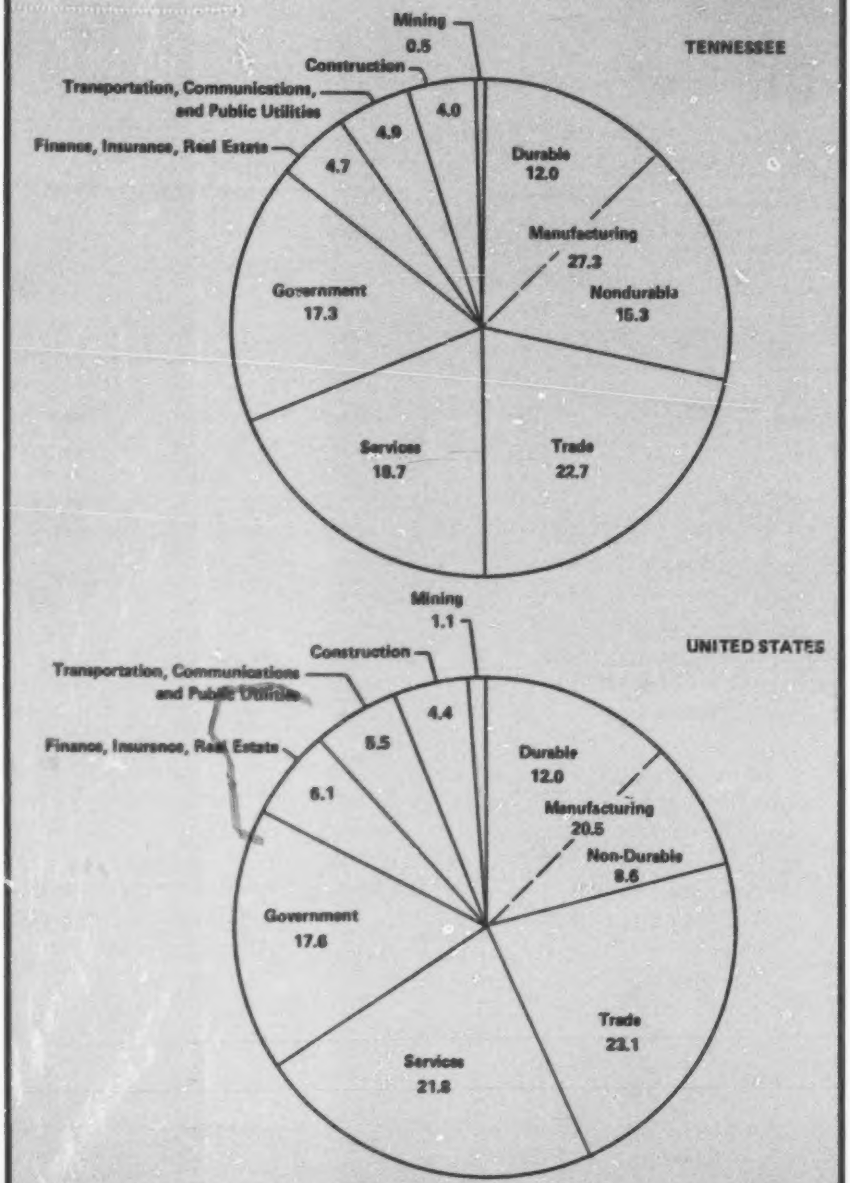
FIGURE 1

PERCENTAGE DISTRIBUTION OF NONAGRICULTURAL JOBS, 1983



in 1977, at approximately the same point in the business cycle, manufacturing employment was 30.8 percent of the total, compared with 27.3 percent in 1983. The decline is similar to that which has occurred in the U.S., so it would appear that the relative conditions are changing very little.

Several factors suggest Tennessee is becoming even more cyclical relative to the U.S. One is that many major electricity users regard TVA power as more expensive than the power they would use if they produced at their alternative sites. This opinion persists despite the fact that TVA electricity is less expensive than the U.S. average, and results because other plants where these firms produce are also located in areas with below-average electric rates. Some of these firms have now announced that their Tennessee locations are the swing plants. That is, in an economic expansion the Tennessee plants will operate. During a downturn they would be among the first to close. TVA is currently involved in negotiations with Alcoa to provide interruptible power at much lower rates in order to lessen this problem by cutting the electric rate which Alcoa pays.

Another reason why Tennessee business cycles may be growing increasingly cyclical has to do with "just-in-time" inventory systems such as the one employed currently by Nissan. With a "just-in-time" system, the intent is to produce a product only when a prospective buyer is expected. In the automotive industry this practice contrasts with U.S. car makers' policies of producing cars so that consumers can choose from an inventory on the lots. A "just-in-time" system will be most sensitive to business cycles because production will be slowed as soon as consumer demand slows, and vice versa. Thus, shifts in the production at Nissan and its suppliers can be expected to coincide very closely to shifts in auto demand in the U.S. Such producers now comprise a relatively small part of Tennessee production, but this situation could change, since the location of Nissan is beginning to attract many of its suppliers to Tennessee.

Out of the Slump

The state's recent economic history reveals how Tennessee's economy is linked to the nation's, but with upsurges and downturns that are more pronounced.

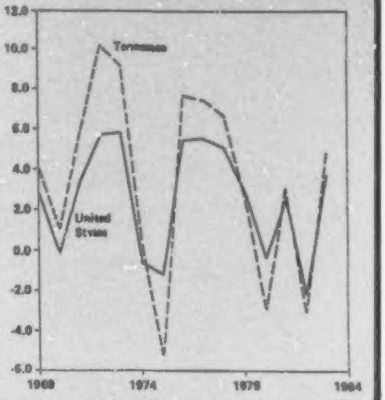
The Tennessee economy has been in an economic expansion for about 18 months, six months less than the U.S. Prior to this expansion, the Tennessee economy experienced a prolonged downturn which began in 1979. From the peak employment in June 1979 to the trough in December 1982, net nonagricultural job losses were 98,000 (seasonally adjusted). More than 70 percent of the net loss was in manufacturing, but sizeable losses also occurred in construction (22,800 jobs), wholesale and retail trade (12,500 jobs), and government (15,500 jobs). Only services; and finance, insurance, and real estate experienced job increases during the three and one-half year downturn.

Jobs and other measures of economic activity exhibited little movement from the national recession's end in November 1982 until June 1983. But since then, the rebound has been pronounced. The expansion's strength can be measured relative to the strong economic growth experienced after the 1974-75 recession, as illustrated in Figures 3 through 7. For all figures except 5, an index is employed for both the post-1975 and post-1982 expansions to measure changes as the expansions develop. Each index is centered on the value 100 in the quarter when the national expansion terminated (1975.1 and 1982.4), and each line is plotted beginning with the three quarters leading up to the trough. As the values rise above 100, they illustrate the growth relative to the trough. For example, a value of 120 means that personal income is 20 percent higher at that point in time than when the recession ended.

Figure 3 illustrates constant dollar personal income growth (1972 dollars). In the first quarter of the current expansion, real personal income declined. Since that point, it grew at about the same rate in both expansions. The index lines are approximately parallel, but the effect of the first-quarter drop leaves income growth below that of the earlier expansion.

FIGURE 2

PERCENTAGE CHANGE IN TENNESSEE REAL GSP AND U.S. REAL GSP, 1969-1983



Nonagricultural employment (see Figure 4) growth in the current expansion also roughly parallels its growth rate after the previous recession. In fact, employment is slightly higher at this point in the current expansion. Unfortunately, the rise has not been reflected in unemployment rates, which have not fallen to the late 1970's level. As illustrated in Figure 5, unemployment rates remain much higher than before. The reason is that the full employment unemployment rate (FEUR) is now much higher than it used to be. The FEUR is the unemployment rate at which everyone who wants to be employed at the market wage rate has a position, and the actual unemployment rate can go lower only with wage inflation. The FEUR is higher because the labor force has relatively more recent entrants (young people and women) and because the employment structure in the state has been shifting. Significant job growth will be necessary to bring the unemployment rate down to the U.S. level.

Most individual industries have been expanding at rates similar to their performances during the 1975-79 time period. The services and manufacturing sectors are at about the same level of growth as in the earlier expansion (Figures 6 and 7). One exception, construction, has grown much more rapidly in the last several years. But the depth reached in 1982 was so low that construction employment remains well below the 1979 peak. Another exception is government, where little growth has occurred recently. After the previous recession, substantial growth was realized when TVA added workers during the construction work of the late 1970s.

Overall, though, the Tennessee economy has been expanding at a strong rate, similar to its performance during the late 1970s. During 1984, sales grew at a robust 15.5 percent in the first quarter, 13.6 percent in the second quarter, and 12.4 percent in the third quarter as measured by state sales tax collections. Durable goods sales, particularly autos, furniture, and building materials have led the way. More recently, durable goods growth has slowed, and this has caused the slowdown in sales expansion.

Short-term Forecast for 1985

In the last section, it was shown that the Tennessee economy has been growing at rates comparable to the 1975-79 expansion. The forecast is that the Tennessee economy will continue to expand for five more quarters (through 1985), but at slowing rates. Thus, the expansion will be briefer than the earlier one.

The short-term forecast extends through 1986.3 (see Table 1). Activities in the national economy and the structure of the state's economy are the key factors influencing the short-term forecast. Long-term economic trends in a region are less important for such a short time frame. Thus, wage differentials, energy prices, north-south migration shifts, and many other factors which can influence economic performance in the long term are not major influences.

FIGURE 3
TENNESSEE 1972 DOLLAR PERSONAL INCOME INDEXES
(Recession Trough = 100.)

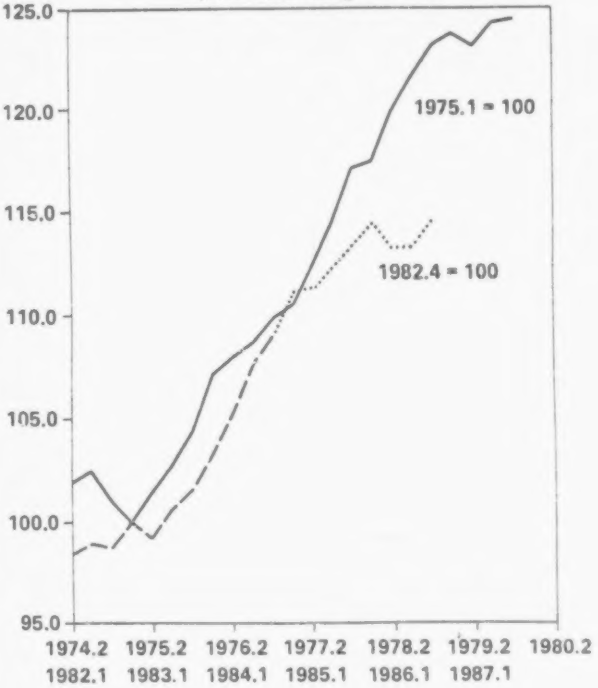


FIGURE 4
TENNESSEE TOTAL NONAGRICULTURAL EMPLOYMENT INDEXES
(Recession Trough = 100.)

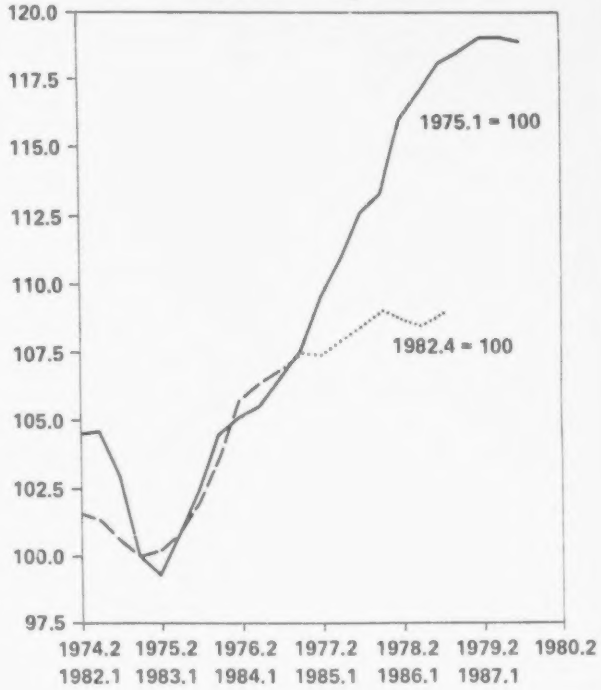


FIGURE 5
TENNESSEE UNEMPLOYMENT RATE
(Percent)

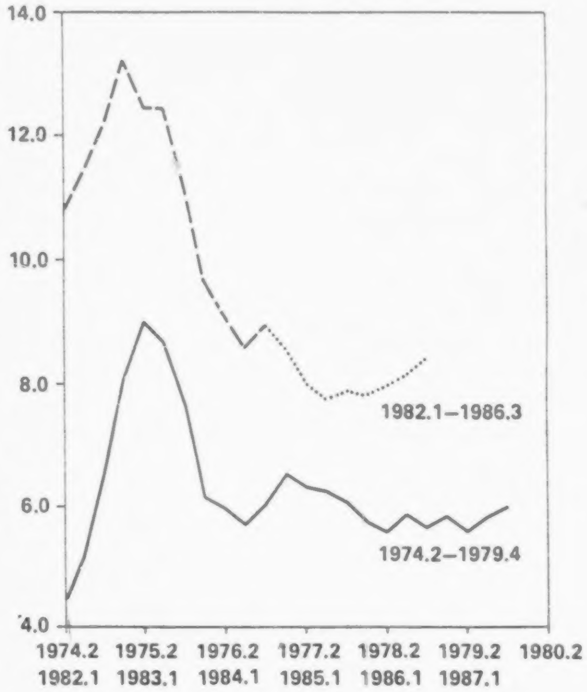
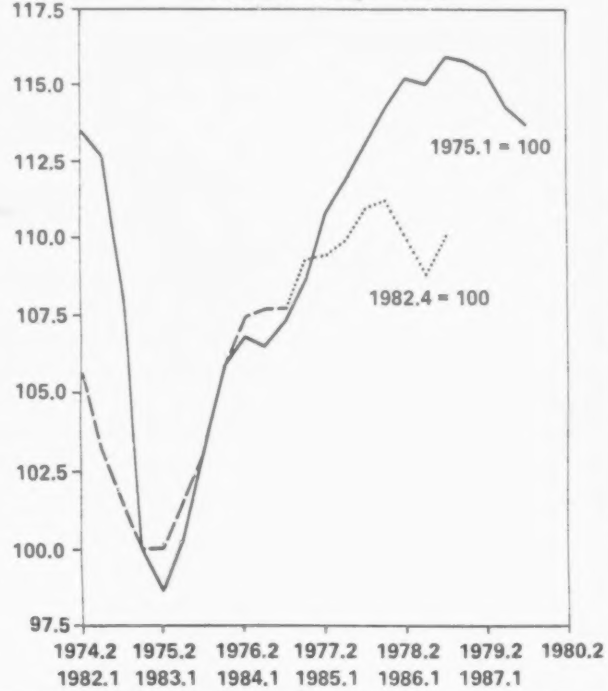


FIGURE 6
TENNESSEE MANUFACTURING EMPLOYMENT INDEXES
(Recession Trough = 100.)

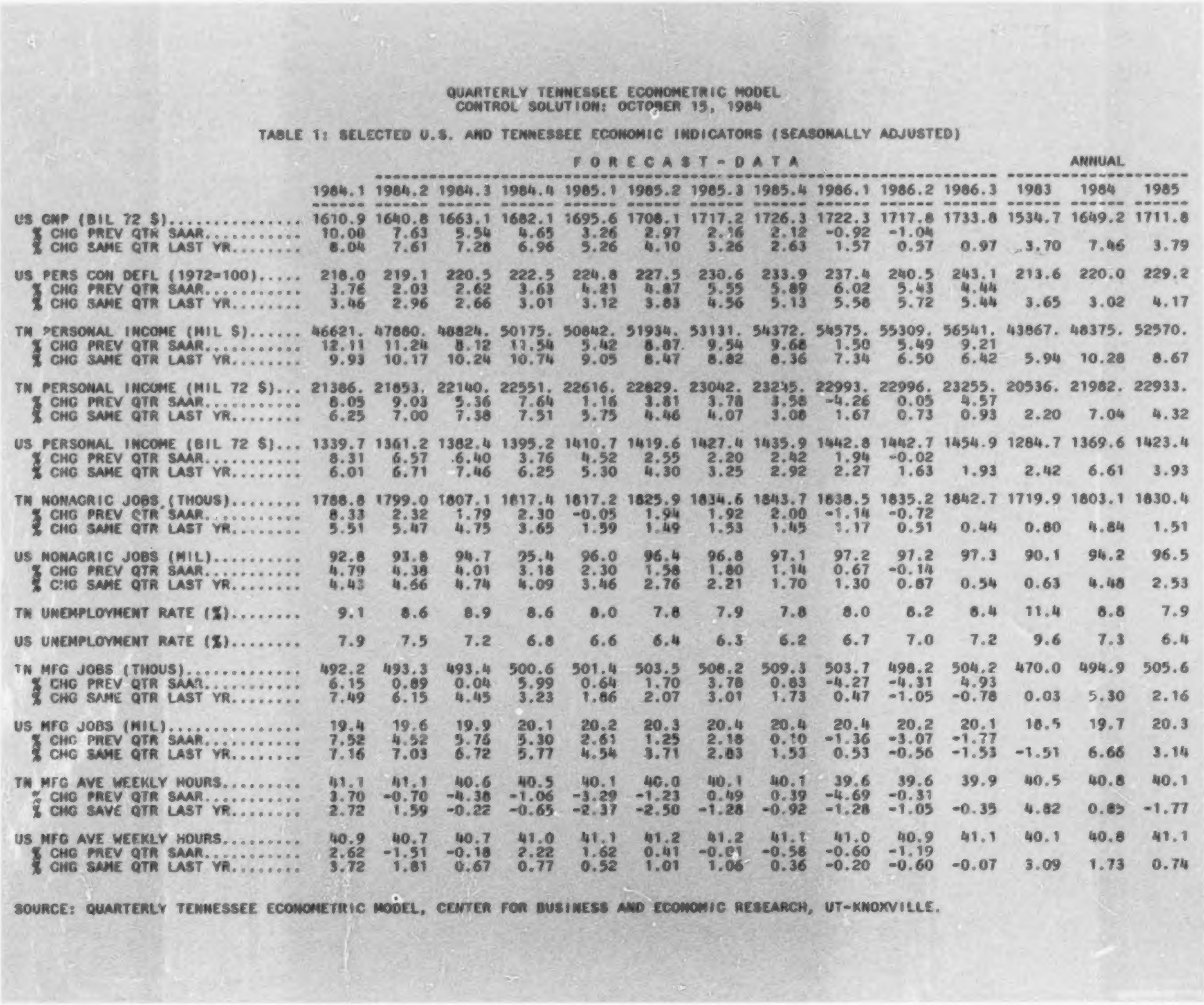


The dotted lines in Figures 3 through 7 illustrate the forecast for various economic indicators. In each case, the figure demonstrates that the forecast calls for economic growth to subside sooner than in the 1975-79 recovery. What follows is an explanation of how each of the major economic indicators is forecast to perform.

Personal Income: Tennesseans will earn $52.6 billion in 1985, a growth rate of 8.7 percent over 1984. However, once inflation is subtracted, the increase in income is 4.3 percent, just slightly above the state trend growth and slightly above the U.S. increase. By the end of 1985, real personal income growth will be increasing below trend, and no growth at all is expected during the first two quarters of 1986 as the U.S. economy goes into a small recession. The economic performance at the end of 1985 will bring the growth pattern well below that experienced in the late 1970s.

Job Forecast: Nonagricultural jobs are expected to rise 1.5 percent in 1985 after 4.8 percent of growth in 1984. Job growth rates have been moderating over the past year, and this pattern is expected to continue. A small reduction in jobs is forecast for the first half of 1986.

Job Growth by Sector: The 1985 forecast growth rates are illustrated in Figure 8 for individual sectors. A wide disparity of performance is indicated across sectors. Durable goods manufacturing is forecast to grow the fastest next year, 5.1 percent. Employment within this sector will reach 242.4 thousand during 1985.4, slightly below the May 1979 peak. Meanwhile, nondurable goods manufacturing is expected to decline slightly. No rebound has occurred, and none is expected in this expansion. Apparel, textiles, food, and chemicals are the main reasons for this weak performance. Overall, manufacturing will end 1985 about 21,000 jobs below the historical peak. Manufacturing jobs will begin to decrease with the expected downturn in the beginning of 1986, so the current expansion will



QUARTERLY TENNESSEE ECONOMETRIC MODEL
CONTROL SOLUTION: OCTOBER 15, 1984

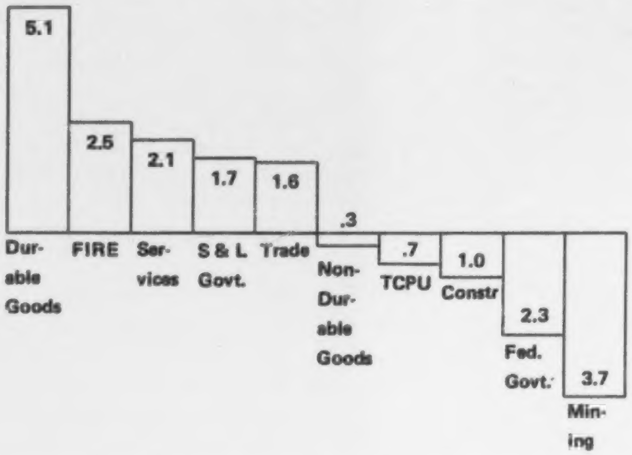
TABLE 1: SELECTED U.S. AND TENNESSEE ECONOMIC INDICATORS (SEASONALLY ADJUSTED)

	FORECAST - DATA											ANNUAL		
	1984.1	1984.2	1984.3	1984.4	1985.1	1985.2	1985.3	1985.4	1986.1	1986.2	1986.3	1983	1984	1985
US GNP (BIL 72 $)	1610.9	1640.8	1663.1	1682.1	1695.6	1708.1	1717.2	1726.3	1722.3	1717.8	1733.8	1534.7	1649.2	1711.8
% CHG PREV QTR SAAR	10.00	7.63	5.54	4.65	3.26	2.97	2.16	2.12	-0.92	-1.04				
% CHG SAME QTR LAST YR	8.04	7.61	7.28	6.96	5.26	4.10	3.26	2.63	1.57	0.57	0.97	3.70	7.46	3.79
US PERS CON DEFL (1972=100)	218.0	219.1	220.5	222.5	224.8	227.5	230.6	233.9	237.4	240.5	243.1	213.6	220.0	229.2
% CHG PREV QTR SAAR	3.76	2.03	2.62	3.63	4.21	4.87	5.55	5.89	6.02	5.43	4.44			
% CHG SAME QTR LAST YR	3.46	2.96	2.66	3.01	3.12	3.83	4.56	5.13	5.58	5.72	5.44	3.65	3.02	4.17
TN PERSONAL INCOME (MIL $)	46621.	47880.	48824.	50175.	50842.	51934.	53131.	54372.	54575.	55309.	56541.	43867.	48375.	52570.
% CHG PREV QTR SAAR	12.11	11.24	8.12	11.54	5.42	8.87	9.54	9.68	1.50	5.49	9.21			
% CHG SAME QTR LAST YR	9.93	10.17	10.24	10.74	9.05	8.47	8.82	8.36	7.34	6.50	6.42	5.94	10.28	8.67
TN PERSONAL INCOME (MIL 72 $)	21386.	21853.	22140.	22551.	22616.	22829.	23042.	23245.	22993.	22996.	23255.	20536.	21982.	22933.
% CHG PREV QTR SAAR	8.05	9.03	5.36	7.64	1.16	3.81	3.78	3.58	-4.26	0.05	4.57			
% CHG SAME QTR LAST YR	6.25	7.00	7.38	7.51	5.75	4.46	4.07	3.08	1.67	0.73	0.93	2.20	7.04	4.32
US PERSONAL INCOME (BIL 72 $)	1339.7	1361.2	1382.4	1395.2	1410.7	1419.6	1427.4	1435.9	1442.8	1442.7	1454.9	1284.7	1369.6	1423.4
% CHG PREV QTR SAAR	8.31	6.57	6.40	3.76	4.52	2.55	2.20	2.42	1.94	-0.02				
% CHG SAME QTR LAST YR	6.01	6.71	7.46	6.25	5.30	4.30	3.25	2.92	2.27	1.63	1.93	2.42	6.61	3.93
TN NONAGRIC JOBS (THOUS)	1788.8	1799.0	1807.1	1817.4	1817.2	1825.9	1834.6	1843.7	1838.5	1835.2	1842.7	1719.9	1803.1	1830.4
% CHG PREV QTR SAAR	8.33	2.32	1.79	2.30	-0.05	1.94	1.92	2.00	-1.14	-0.72				
% CHG SAME QTR LAST YR	5.51	5.47	4.75	3.65	1.59	1.49	1.53	1.45	1.17	0.51	0.44	0.80	4.84	1.51
US NONAGRIC JOBS (MIL)	92.8	93.8	94.7	95.4	96.0	96.4	96.8	97.1	97.2	97.2	97.3	90.1	94.2	96.5
% CHG PREV QTR SAAR	4.79	4.38	4.01	3.18	2.30	1.58	1.80	1.14	0.67	-0.14				
% CHG SAME QTR LAST YR	4.43	4.66	4.74	4.09	3.46	2.76	2.21	1.70	1.30	0.87	0.54	0.63	4.48	2.53
TN UNEMPLOYMENT RATE (%)	9.1	8.6	8.9	8.6	8.0	7.8	7.9	7.8	8.0	8.2	8.4	11.4	8.8	7.9
US UNEMPLOYMENT RATE (%)	7.9	7.5	7.2	6.8	6.6	6.4	6.3	6.2	6.7	7.0	7.2	9.6	7.3	6.4
TN MFG JOBS (THOUS)	492.2	493.3	493.4	500.6	501.4	503.5	508.2	509.3	503.7	498.2	504.2	470.0	494.9	505.6
% CHG PREV QTR SAAR	6.15	0.89	0.04	5.99	0.64	1.70	3.78	0.83	-4.27	-4.31	4.93			
% CHG SAME QTR LAST YR	7.49	6.15	4.45	3.23	1.86	2.07	3.01	1.73	0.47	-1.05	-0.78	0.03	5.30	2.16
US MFG JOBS (MIL)	19.4	19.6	19.9	20.1	20.2	20.3	20.4	20.4	20.4	20.2	20.1	18.5	19.7	20.3
% CHG PREV QTR SAAR	7.52	4.52	5.76	5.30	2.61	1.25	2.18	0.10	-1.36	-3.07	-1.77			
% CHG SAME QTR LAST YR	7.16	7.03	6.72	5.77	4.54	3.71	2.83	1.53	0.53	-0.56	-1.53	-1.51	6.66	3.14
TN MFG AVE WEEKLY HOURS	41.1	41.1	40.6	40.5	40.1	40.0	40.1	40.1	39.6	39.6	39.9	40.5	40.8	40.1
% CHG PREV QTR SAAR	3.70	-0.70	-4.38	-1.06	-3.29	-1.23	0.49	0.39	-4.69	-0.31				
% CHG SAVE QTR LAST YR	2.72	1.59	-0.22	-0.65	-2.37	-2.50	-1.28	-0.92	-1.28	-1.05	-0.35	4.82	0.85	-1.77
US MFG AVE WEEKLY HOURS	40.9	40.7	40.7	41.0	41.1	41.2	41.2	41.1	41.0	40.9	41.1	40.1	40.8	41.1
% CHG PREV QTR SAAR	2.62	-1.51	-0.18	2.22	1.62	0.41	-0.01	-0.58	-0.60	-1.19				
% CHG SAME QTR LAST YR	3.72	1.81	0.67	0.77	0.52	1.01	1.06	0.36	-0.20	-0.60	-0.07	3.09	1.73	0.74

SOURCE: QUARTERLY TENNESSEE ECONOMETRIC MODEL, CENTER FOR BUSINESS AND ECONOMIC RESEARCH, UT-KNOXVILLE.

FIGURE 8

FORECAST GROWTH RATES FOR NONAGRICULTURAL JOBS IN 1985



end with a net decrease in manufacturing jobs.

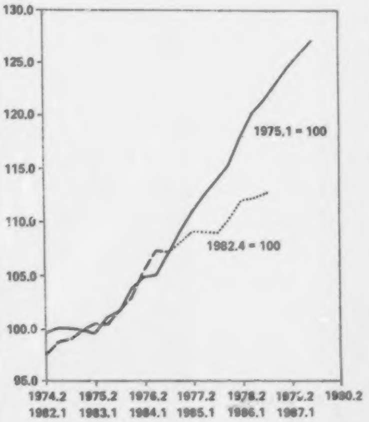
Finance, insurance, and real estate and services will have the next strongest growth rates in 1985. These sectors have good, stable growth trends, and they are the two sectors which continued to expand through the recent sustained downturn. Thus, their growth is not simply a cyclical rebound, but a continuation of an established pattern.

Several sectors are expected to decline this year, particularly those which are interest-rate sensitive, such as construction and mining. The peak in construction employment during this expansion, expected during 1985.3, will be 13,000 lower than the June 1979 peak. Again, this sector is declining, as it will fail to rebound completely before beginning to contract.

Unemployment Rate: The jobless rate should drop about 1 percent during 1985 as employment expands. The rate will reach 7.8 percent and then begin rising by early 1986 as the downturn slows job growth. Different characteristics of the labor force, such as the number of in-migrants, women, and young people, plus a shifting employment structure, are probable reasons why Tennessee's unemployment rate will remain above the U.S. average. Over the long term, the rate should drop as demographic shifts slow labor force growth and as the economy adjusts to employ those who have lost positions through changes in the employment structure.

FIGURE 7

TENNESSEE SERVICES EMPLOYMENT INDEXES (Recession Trough=100.)



Sales: Dramatic sales growth occurred in Tennessee during the first half of 1984. Automobiles, miscellaneous durable goods, and purchases from manufacturers increased the most, as consumers took home products they had delayed purchasing during the recession. Evidence indicates that sales in these categories are now slowing. On a bleaker note, interest rates, though falling somewhat, are still high in real terms, and this makes it expensive to purchase durable goods. At the same time, pent-up demand for these goods is probably becoming satiated. As a result, growth rates for these sales categories are expected to slow. Auto sales in units, for example, will probably be similar in 1985 to those for 1984.

Nondurable goods categories, such as eating and drinking places, food stores, and other retail operations and services, will remain more stable throughout the forecast period. But slowing real income growth should result in slowing sales growth in these categories as well.

The Tennessee economy has been growing at a strong rate during the past 18 months. Overall, the economy's performance is very similar to the way it behaved during the robust 1975-79 expansion. Growth rates are expected to moderate over the next 12 to 15 months, but to remain at or above the trend level. Healthy increases can be expected this year in durable goods manufacturing; finance, insurance, and real estate; and the service sectors. By the end of 1985 or the beginning of 1986, a recession in the U.S. is expected to hit Tennessee, reducing nonagricultural jobs and causing real income to stop growing.

In the Long Run – Good News

The national economy will generally be strong through 1993. The national unemployment rate will decline two full percentage points, reaching 5.3 percent by 1993. Inflation will average a moderate 4.8 percent per year over the next decade. Business investment will follow expected fluctuations in the economy. Slowdowns can be expected in 1986 and 1990. But led by investment in equipment, business investment will be generally strong throughout the period. Furthermore, interest rates, though rising in the short term and again after a sharp fall in 1987, will stay generally below current levels. And, while industrial production will grow at rates below those seen in early 1984, they will still average a robust 3.5 percent per year. Finally, housing starts are forecast to decline through 1986 and in 1990, but starts will rebound toward the end of the long-term period.

Looming on the horizon, however, are those huge current and expected federal budget deficits which pose a structural threat to the economy. As Wharton Econometrics notes in its Long-Term Forecast of September 1984, interest rates remain high because the Federal Reserve refuses to fully accommodate federal spending wishes. Rather, the Fed is restricting money supply growth rates to hold down the rate of inflation. If the deficit problem is not addressed decisively, real interest rates will remain high. The probable result is a more cyclical growth path along which high interest rates and ample fiscal spending alternately induce recessions and recoveries. This likely national profile suggests the possibility of more rough economic times for Tennessee because of the state's extreme sensitivity to national business downturns.

Down the Road for Tennessee

Despite these dark clouds, several factors suggest that Tennessee should continue to grow well. First, the state has relatively low wages, and this factor will entice firms to locate here, providing jobs, tax revenues, and other benefits. Second, the state is a net in-migration state. That is, each year the number of people migrating into Tennessee exceeds the number of those leaving. This situation is related to the "Frost Belt to Sun Belt Migration" phenomenon. The steady infusion of largely working-age people acts as a magnet for certain types of businesses, most notably services, and therefore increases employment in the state.

Besides these advantages, there is a plentiful supply of natural resources and above-average productivity. These advantages are offset somewhat by recent declines in government activity, a persistent unemployment rate gap, and the aforementioned overdependence on manufacturing that makes Tennessee more cyclically sensitive than the nation as a whole. The results of these opposing phenomena will cause Tennessee's long-term economic performance to be generally strong, but it will also exhibit weaknesses.

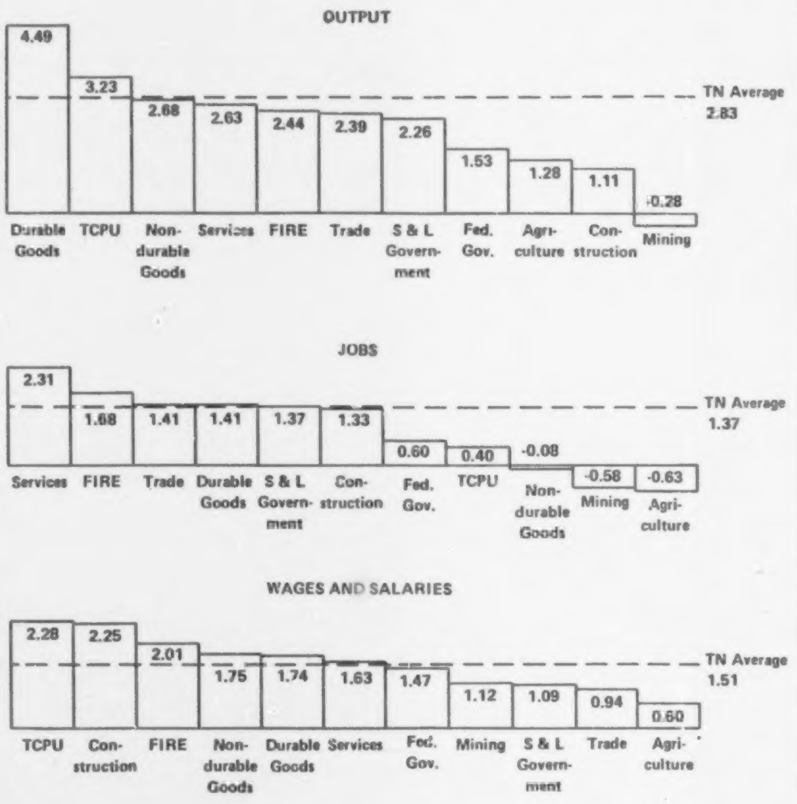
Real Gross State Product: Real GSP will grow at a compounded average annual rate of just over 3.4 percent during the 1983-1993 period, exhibiting a healthy rate of growth that is similar to the growth rate anticipated for GNP over the same time horizon.

Employment: During the 1983-1993 period, employment in Tennessee will grow at an annual rate of over 1.6 percent – to 2.27 million workers. (At the national level employment will grow about 1.9 percent annually.)

On the negative side, the unemployment rate gap is expected to

FIGURE 9

AVERAGE ANNUAL PERCENTAGE GROWTH RATES IN OUTPUT, JOBS AND WAGES AND SALARIES FOR VARIOUS SECTORS COMPARED WITH STATE-WIDE AVERAGE GROWTH RATES[1]
1984-1993



1. Output is gross state product in 1972 dollars; jobs is jobs by sector in thousands; and wages and salaries is average annual wage and salary in 1972 dollars.

SOURCE: Tennessee Econometric Model, November 1984 solution.

persist into the last decade of this century. The relatively higher rates in Tennessee are the results of demographic and structural shifts in the economy which are more pronounced than those occurring in many other states. Also, the forecast for U.S. unemployment rates used as an input in this study suggests a lower rate nationally than appears likely to the authors.

Tennessee will become more concentrated in durable goods manufacturing jobs by 1993, while the nation will become less concentrated.

Personal income: Growth should be very solid as employment and productivity in Tennessee expand in the long run. For the 1983-1993 period, real personal income in Tennessee is expected to grow at an annual average of 3.7 percent (compared with 3.3 percent nationally). Real Tennessee per capita disposable personal income growth for the long run should be about 2.7 percent.

Average annual wages and salaries, the largest component of personal income, will grow at an average annual rate of 6.1 percent from the 1983 average of $15,677 to $28,315 in 1993. After inflation, real wages and salaries will still register positive growth of an average 1.6 percent annually.

The Next Recession

While the outlook for the Tennessee economy is favorable, overall, there nevertheless will be cyclical ups and downs in its future course. As mentioned earlier, 1986 should be a year of very modest growth at the national level. Indeed, several quarters could see negative growth. As has been the case in past periods of nationwide slowdowns, Tennessee will suffer disproportionately. While real GNP growth in 1986 will be around 1.2 percent, output growth in Tennessee will be a meager 0.7 percent across all sectors. Nondurable goods manufacturing and construction are both likely to experience real output setbacks in Tennessee during 1986. And, during the slowdown year of 1990, both durable goods and construction (again) will suffer real output declines.

It is also normal for Tennessee to recover from a recession faster than the U.S. Thus, during the 1987-1989 recovery period, consumers can expect Tennessee's real GSP to grow at an annual average rate of 3.4 percent, while real GNP grows at a lower, but healthy, rate of 3.2 percent per year. During the second growth spurt, 1991-1993, Tennessee's real GSP is also expected to grow faster than real GNP (3.0 percent per year versus 2.5 percent nationally).

The state's economy encompasses a range of industries which react differently during economic cycles. Figure 9 shows how each major industrial sector in Tennessee will perform during 1984-1993 in relation to the state-wide average and in relation to each other. Output in durable goods and in transportation, communications, and public utilities (TCPU) will grow faster than the rest of the state. Services will lead the state in long-run growth in jobs, reflecting both national and state trends. Also, above-average growth can be expected in finance, insurance, and real estate (FIRE), durable goods, and trade. Conversely, output in mining will show a *decline* in real terms. Jobs in mining are expected to shrink over the long run. Jobs in nondurable goods manufacturing also will suffer an absolute loss between 1984 and 1993. Although only four of this industry's eight components will lose jobs, the losses in textiles, apparel, chemicals, and other nondurables will be sufficient to offset the job gains in the remaining sectors. The apparel losses are a symptom of the movement of jobs to low-wage-paying nations in Asia and elsewhere. Finally, wages and salaries will be growing fastest in TCPU, construction, FIRE, nondurable goods, durable goods, and services.

It is not surprising that during an essentially expansionary decade, the most vigorous economic performance is exhibited by the cyclically sensitive durable goods sector. This is the only industry which is expected to show above-average growth in output, jobs, and wages and salaries.

The slowest growing sector across the board will most likely be agriculture. Growth in agricultural output, jobs, and wages and salaries will trail state averages for other industries.

In the earlier discussion based upon Figure 1, it was concluded that Tennessee is particularly vulnerable to high-interest-rate and demand-deficient recessions because of its industry mix. The percentage distributions of nonagricultural jobs in Tennessee and the U.S. are forecast to change in two notable ways between now and 1993. First, although both Tennessee and the nation will become more concentrated in services, Tennessee will lag behind the U.S. Specifically, the difference between the percentage of service jobs in each economy was 3.1 percentage points in 1983; it will be 3.3 percentage points in 1993. Second, Tennessee will have a slight increase in its concentration in durable goods manufacturing jobs, while the nation will become slightly less concentrated. That is, for equal percentages in 1983 (12.0 percent), the U.S. will drop to 11.7 percent of its nonagricultural jobs in durable goods manufacturing while Tennessee's percentage will grow to 12.7.

These expectations suggest that the state's economy will be facing not only continued, but increased, vulnerability to the cyclical whims of the national economy (and its attendant high interest rates) in the next decade. ■

This forecast conforms to the detailed forecast and analysis as provided in the 1985 Economic Report to the Governor of the State of Tennessee.

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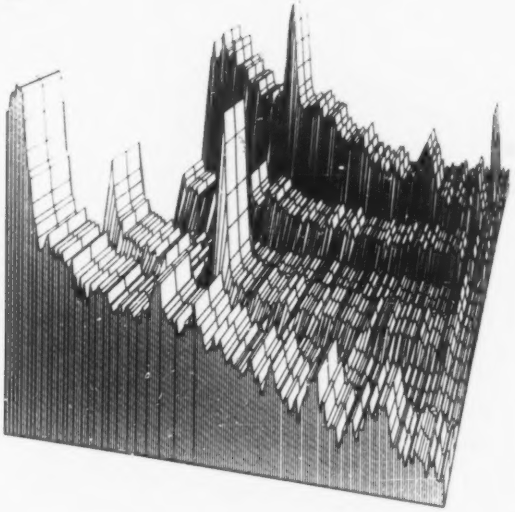

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The Changing Banking System

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SPRING 1985　VOLUME 20, NUMBER 3

survey of business

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4
Bank Failures: Origins and Implications
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and
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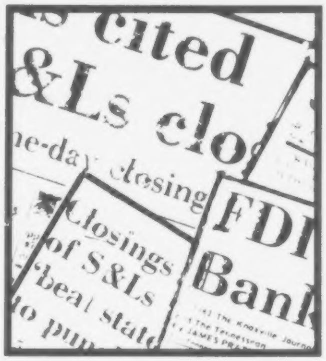

10
Consolidating Financial Resources: Interstate Banking
Ronnie J. Clayton
Assistant Professor of Finance, UTK
and
David S. Kidwell
Blount National Bank Professor of Finance UTK

19
The Financial Services Industry and the Consumer: Competition, Innovation and Technology
Robert J. Rogowski
Associate Professor of Finance, Washington State University, Pullman

S.O.S
Bring us your design for the future... we'll help you make

24
Thrifts: Problems and Prospects
Ronnie J. Clayton
Assistant Professor of Finance, UTK
and
James A. Verbrugge
Professor and Chairman of Finance, The University of Georgia

32
The Continuing Evolution of Adjustable-Rate Mortgages
Joseph A. McKenzie
Senior Financial Economist, Office of Policy and Economic Research, Federal Home Loan Bank Board Washington, D.C.

50
BALTIC AVENUE
COMM CHES

37
Research and Teaching Interests of Finance Faculty, UTK, Knoxville

Cover: Citicorp Center, New York, base of Citibank's worldwide financial empire.

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Consulting Editors' Comments

One of the most highly scrutinized industries today is the financial services industry. Pick up a newspaper or magazine or tune in a television news program, and you are likely to find a report relating to banking, personal finance, mortgage finance, brokerage or prices in the financial markets. Why the interest and scrutiny? Both individuals and the general public relate to most areas of finance. Almost everyone has a checking account with a local bank; most individuals have personal debt outstanding; many buy and sell stocks and bonds; and a large percentage of the population is purchasing homes with the aid of home mortgage finance. Also, business persons use financial services to meet financing and liquidity needs. For these reasons, people are concerned with the viability and economic well-being of the financial services industry.

The articles in this issue of the **Survey** examine the changing financial scene. Current topics of concern include the cause and prevention of bank failures, interstate banking, consumer finance, the changing thrifts, and adjustable mortgage loans.

In the first article, Ronnie J. Clayton and David S. Kidwell examine the history of bank failures and discuss recent large bank failures and the "thrift holiday" in Ohio. The article also considers the pivotal role of federal deposit insurance in the prevention and control of financial institution failures. In the second article, the same authors examine the issues surrounding interstate banking. Topics considered range from arguments for and against consolidating financial services to the likely effect of interstate banking on the delivery of consumer financial services.

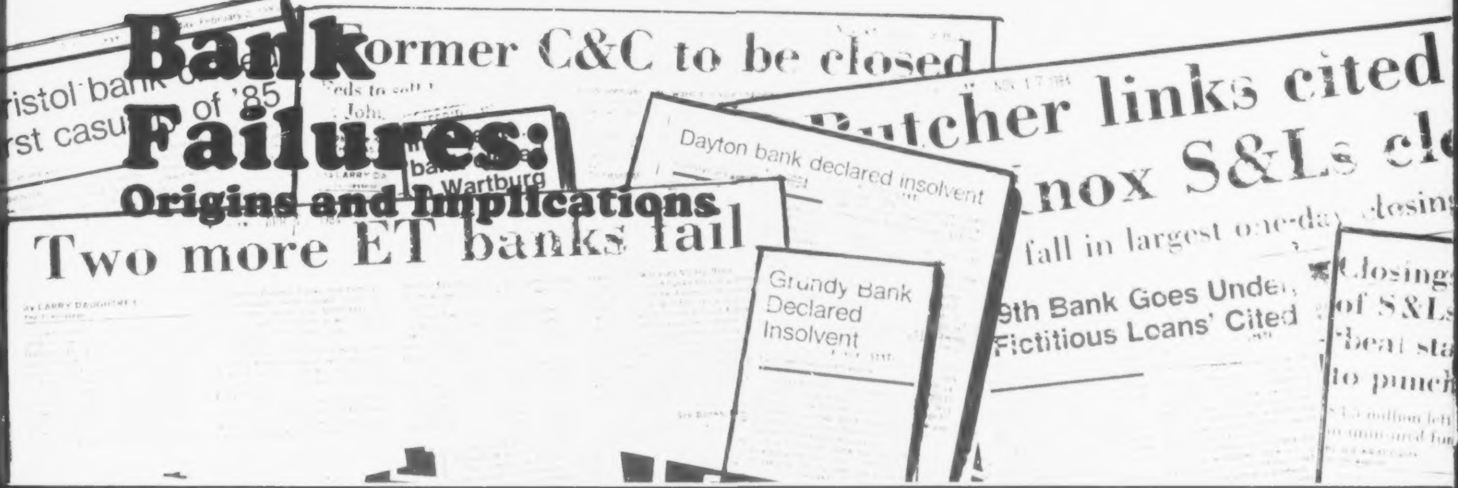
In the next article, Robert J. Rogowski considers the changing competitive environment for consumer funds and recent developments in delivery of consumer financial services.

Whereas the first two articles evaluate thrifts and changes in the thrift industry, Ronnie J. Clayton and James A. Verbrugge examine the development of the thrift industry and the reasons for its ongoing difficulties. Prospects and strategies for the future health of the industry are also considered. Joseph A. McKenzie in the final article examines the relationship between adjustable mortgage loans and fixed rate mortgages and considers the benefits and costs of adjustable mortgages to consumers and thrifts.

Overall, the five articles consider many of the issues that make the financial services industry both interesting and exciting. As the reader will gather from the articles, the industry is rapidly changing in response to economic and technological events. The evolving environment in economic and technical arenas portends continuous change for the foreseeable future.

Ronnie J. Clayton
David S. Kidwell

Bank Failures: Origins and Implications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Closings of S&Ls
fall in largest one-day closing

Ronnie J. Clayton
and
David S. Kidwell

Bank failures and the financial difficulty of depository institutions are major news items these days. Witness the extensive press coverage given the demise of Penn Square Bank of Oklahoma or United American Bank (UAB) of Knoxville, the financial entanglements of Continental Illinois, or more recently, the temporary closing of 71 Ohio Savings and Loan Associations – the first "bank holiday" since the Great Depression. Why has the media trained its sights on the troubled banking industry? Certainly, the dashing former gubernatorial candidate, Jake Butcher of UAB, made good press coverage. But, for the most part, bank failures have an impact on the economy that goes beyond that of ordinary business failures.

Historical Perspective on Bank Failures

Bank failures in American history have occurred both as isolated local events and in great national waves. During the business recession of 1870, only one bank closed. But during the business panic of 1893, nearly 500 banks out of 9,500 suspended operations. It is these periods that are of concern because they impinge upon the health of the economy.

Table 1 shows bank failures in numbers and percentages of active banks for the period 1890 to 1972. Between 1890 and 1920 the number of bank failures averaged about 100 per year, something less than 2 percent of all banks. Then, beginning in the 1920s, the number of bank failures increased dramatically to an average of about 600 per year. Yet, this increase was minor compared to what happened during the Great Depression. Between 1930 and 1933 more than 9,000 banks suspended operations in this country – an average of more than 2,200 bank failures per year, or 43 banks per week. During this time over 40 percent of all active banks failed and depositors sustained losses of $1.3 billion.

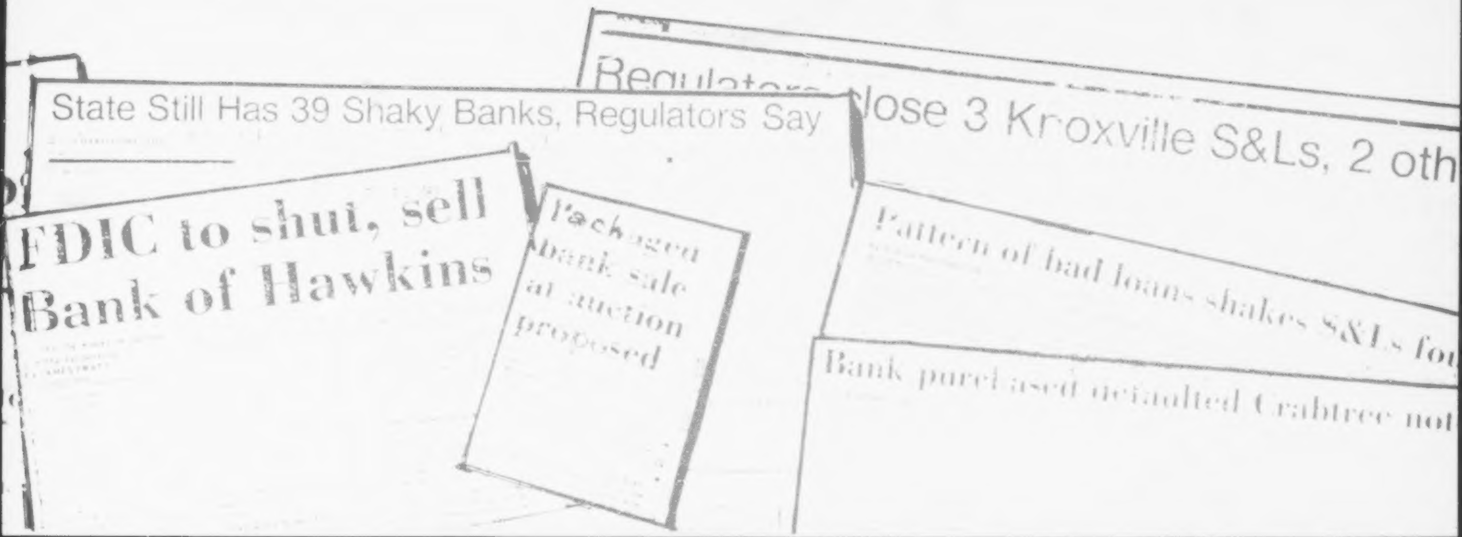
Congress reacted with legislation aimed at preventing wholesale bank failures. The Glass-Steagall Act of 1933 was the result. Among other things it barred banks from paying interest on demand deposits, separated commercial banking from investment banking, and restricted the types of assets banks could own on the grounds that these and other banking practices were excessively risky. While the wisdom and effectiveness of some Glass-Steagall restrictions have been questioned, the establishment of the Federal Deposit Insurance Corporation (FDIC) in 1933 was a success in that it did restore confidence in the commercial banking system. By guaranteeing the safety of depositor funds, the FDIC put an end to banking panics. More important, a potential insolvency at one bank no longer threatened deposits at other banks in the same economic region, which put a stop to the domino effect that has always plagued American banking.

The effectiveness of Federal Deposit Insurance in reducing bank failures can be seen in Table 1. Between 1934 and 1942 bank failures dropped

---

Ronnie J. Clayton, Assistant Professor of Finance at the College of Business Administration, The University of Tennessee, Knoxville, was a Visiting Scholar at the Federal Home Loan Bank Board in Washington, D.C. and taught at the University of Kentucky. He and David Kidwell have coauthored a study on the impact of interstate banking on Tennessee banking for the Tennessee Bankers' Association.

David S. Kidwell is the Blount National Bank Professor of Finance at the College of Business Administration, The University of Tennessee, Knoxville. He has conducted numerous seminars around the country on commercial banking and money and capital markets. Professor Kidwell is the author of *Financial Institutions, Markets, and Money* (The Dryden Press, Second Edition 1984), the leading college level textbook on the U.S. financial system.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Pattern of bad loans shakes S&Ls fo
Bank purchased defaulted Crabtree not

to 54 per year. Many of the banks that failed did not have deposit insurance. Following World War II, the number of bank closings dropped to a trickle, averaging something less than 10 per year. Thus, the establishment of deposit insurance dramatically reduced the number of bank failures, and, at insured banks, it shifted the risk of financial loss away from depositors and into the hands of the FDIC.

Why Bank Failures are Extraordinary

When the 1930s banking legislation was passed, it was widely believed that bank failures ignited or reinforced downturns in economic activity. Of course, many kinds of businesses can fail during a recession. But there are several reasons why bank failures take on extraordinary importance.

First, when a bank fails, its uninsured depositors (that is, its creditors) are hurt. Many of these depositors, especially individuals with accounts, do not view themselves as creditors of the bank. Rather, they view banks as serving in a fiduciary capacity, as a riskless safekeeper of their financial wealth. Second, banks assist in allocating credit throughout every sector of the economy. Every community or region must have sufficient capital to fuel economic growth and expansion. Third, the banking industry is more interdependent than most industries. Because of fractional reserve banking, the failure of a single bank can induce fears about the solvency of other banks throughout a region, or possibly throughout the nation if the bank is especially large.

Finally and most important, large numbers of bank failures *can* lead to economic instability. The reason is that massive bank failures can result in a substantial reduction in the nation's supply of money. Monetary theory tells us that rapid and uncontrolled contractions in the money supply leads to reduction in business investment and consumer spending, resulting in a decline in employment, production, and national income. The relationship between money, banking, and national income is the fundamental reason banking is so highly regulated compared to other businesses.

Lessons from Past Bank Failures

By studying previous bank failures it is possible to determine whether we might return to the massive bank failures of the 1930s and another Great Depression. Most evidence indicates that the Depression was brought about in large part due to a precipitous reduction in the money supply begun unwittingly by the Federal Reserve System. This decline was further fueled by massive bank failures. From March 1929 to March 1933, total demand and time deposits declined over 25 percent. Ini-

TABLE 1

NUMBER AND PERCENTAGE OF ALL BANKS FAILING: 1890-1972

Year	Number	Annual Percentage of Active Banks	Average Per Year
1890-1899	1,084	1.50	108
1900-1920	1,789	0.34	85
1921-1929	5,712	2.30	634
1930-1933	9,096	11.29	2,274
1934-1942	487	0.36	54
1943-1952	42	0.03	4
1953-1962	46	0.03	5
1963-1972	60	0.04	6

Source: FDIC, Annual Reports.

tially, the Federal Reserve System began deliberately drawing down bank excess reserves to curb what it believed to be speculation in financial markets. Unfortunately, this left the banking system with inadequate liquidity at a time when large numbers of depositors had begun to withdraw their funds. Given the reduction in liquidity, it became impossible for banks to sell their assets fast enough to provide the currency they needed to meet depositors' withdrawals. As more and more banks failed, the contracting money supply plunged the nation into its deepest and longest economic recession. The lesson from the Great Depression was well learned: to prevent massive bank failures, the nation needed a central bank that would act as lender of last resort and provide the banking system with liquidity when needed. Today, the Federal Reserve System understands its role as lender of last resort, as witnessed by its infusion of temporary funds into Continental Illinois during the depth of that bank's financial crisis.

A second lesson learned from the Great Depression is that many of the era's bank failures were, in fact, "bank panics." Depositors, believing their banks were on the brink of failure, withdrew their funds. In some cases, the banks may have been financially sound. But in the face of panic withdrawals, they failed. Fortunately, today, the FDIC has effectively stopped runs on the banks that it insures by guaranteeing depositors' assets. Thus, depositors know that if their bank fails, they will be paid in an orderly manner by the FDIC. When bank runs have occurred in recent years, they have been isolated to a single bank. The recent runs on Ohio Savings and Loan Associations (SLA) all involved financial institutions that had state deposit insurance and not FDIC insurance. The Ohio SLA problem highlighted the inadequacy of private or state-sponsored deposit insurance programs.

Recent Bank Failures

Beginning in the 1970s, bank failures increased above what had been the historical norm. As shown in Table 2, in the two years following the 1974 recession, 29 banks failed, an average of nearly 15 banks per year. Though the actual number of bank failures is trifling when compared to what happened during the Great Depression, what has alarmed bank regulators and renewed public interest in bank failures is the failure of some very large commercial banks.

Table 3 shows the ten largest bank failures in American history. All occurred after 1970. The two largest failures were United States National Bank of San Diego in 1973, with total assets of $1.3 billion, and Franklin National Bank of New York City in 1974, with total assets of nearly $4.0 billion, making it the largest bank failure in U.S. history. However, these and other bank failures during the 1974-75 recession did not generate any widespread loss of confidence in the banking system, as some bank regulators feared.

Between 1977 and 1979, the number of bank failures returned to a "normal" level, with something less than 23 banks failing during this three-year period (see Table 2). It was in the 1980s that matters deteriorated significantly with two back-to-back recessions (1980 and 1982) coincident with the collapse of the world energy market. The result was an alarming increase in the number of bank fail [illegible] ifically, 34 banks failed duri [illegible] while 48 failed during 1983, and during 1984, a post-Depression record of 79 banks failed. In total, 158 banks failed during this three-year period (1982-84), which was more than the number of banks that had failed in the preceeding 15 years (1967-81). The largest bank failures that occurred during this period were Penn Square Bank of Oklahoma, the fifth largest, and United American Bank of Knoxville, the third largest. However, the most significant event was the financial crisis that struck Continental Illinois during the summer of 1984 and the subsequent bail-out by the

TABLE 2

NUMBER OF BANK FAILURES

1967 - 1984

Year	Number of Failed Banks	FDIC Problem Banks	Ratio of Failed to Problem Banks
1967	4	238	1.68
1968	3	241	1.25
1969	9	217	4.15
1970	7	251	2.79
1971	6	239	2.51
1972	1	190	0.53
1973	6	155	3.88
1974	4	181	2.21
1975	13	347	3.75
1976	16	385	6.25
1977	6	368	1.63
1378	7	342	2.05
1979	10	287	3.48
1980	10	217	4.61
1981	7	223	3.14
1982	34	340	10.00
1983	48	642	7.47
1984	79	848	9.32

Source: FDIC Problem Bank list and FDIC Annual Reports.

TABLE 3

TEN LARGEST BANK FAILURES IN U.S. HISTORY

Rank	Bank	Location	Date	Total Assets (Millions)
1	Franklin National Bank	New York, NY	October 8, 1974	$3,655
2	United States National Bank	San Diego, CA	October 18,1973	1,265
3	United American Bank	Knoxville, TN	February 14, 1983	760
4	Banco Credito y Ahorro Ponceno	Ponce, P.R.	March 31, 1978	713
5	Penn Square Bank	Oklahoma City, OK	July 5, 1982	511
6	Hamilton National Bank	Chattanooga, TN	February 16, 1976	412
7	Drover's National Bank	Chicago, IL	January 19, 1978	227
8	American Bank and Trust Company	New York, NY	September 15, 1976	225
9	Bank Economias	San German, P.R.	September 2, 1977	190
10	International City Bank and Trust Co.	New Orleans, LA	December 3, 1976	176

Source: FDIC, Annual Reports.

federal government. Though Continental's problems technically did not constitute a bank failure, without direct government intervention it would have surely failed. At the time it was the nation's seventh largest bank, with total assets in excess of $40 billion. Continental's demise can be traced to large anticipated loan losses in the bank's energy, agricultural, and heavy industrial loan portfolios. The bank had loaned out massive amounts to all three of these industries, and all were suffering from serious economic problems at the time.

The crisis was precipitated as "rumors" about Continental's problems began to circulate within the financial community. Then suddenly Continental lost $4 billion in deposits in only three days. At that time, Continental was raising about $8 billion daily in overnight funds from the domestic and world money markets. To stem the tide and stabilize what bank regulators believed to be a potentially dangerous situation, government regulators acted quickly. First, the Federal Reserve System, acting as lender of last resort, provided Continental with liquidity to survive as deposit withdrawals mounted. Second, the FDIC responded by guaranteeing the deposits of all depositors and creditors of the bank, and not just those formally insured (deposits up to $100,000). At the same time, the FDIC added $1.5 billion to the bank's sagging capital base.

Why the extraordinary action by bank regulators? The actions were necessary to stabilize the banking system and avert a situation which could result in another 1929 financial collapse and depression. There was concern that if Continental's problem got out of control, a panic might spread to other large banks whose loan portfolios looked similar. In the background, also, there was concern about debt problems of certain less developed countries. If something should trigger a major default by one of the Latin American countries, confidence in other large American banks could ebb quickly.

Nevertheless, the Continental bailout did not escape criticism. Some charged that by rescuing Continental, the federal government has created a two-tiered banking system. According to these critics, the Federal Reserve System and the FDIC effectively announced by their actions that no large money center bank would be allowed to fail, and thus, all depositors at these institutions over the statutory cut-off point have *de facto* deposit insurance. But, the critics charged, for depositors at small banks, the statutory limit would still apply.

A second criticism is that if the federal government stands behind all big bank liabilities, bank management may be tempted to make riskier loans in an effort to increase profits. Previously, one might have assumed that uninsured depositors who are at risk would help monitor a bank's performance, and their willingness (or lack of willingness) to purchase the bank liabilities would discipline the bank to take prudent risks. In fact, in recent years, the FDIC had hoped to make banks more responsive to their uninsured depositors. However, with the Continental experience behind them, uninsured bank depositors now have good reason to be indifferent to the risks that large banks take because of the willingness of the FDIC or some other government agency to intervene and prevent them from suffering any loss.

The Role of the FDIC and Deposit Insurance

As discussed above, deposit insurance explicitly guarantees depositor funds up to a stated maximum; currently $100,000. Table 4 shows the increases in the deposit insurance level from its original maximum of $2,500. The Banking Act of 1933 provided for the establishment of a federal deposit insurance corporation and, following it, the Federal Deposit Insurance Act was passed on June 16, 1934. This legislation established the FDIC, charging it to provide speedy liquidation of failed banks, while protecting depositors against losses due to bank failures. The agency also became involved with regulation, bank examination, deposit regulation, and in assisting troubled banks to prevent their failure.

Deposit Insurance

Deposit insurance provides a limited guarantee of depositor funds. The contract is atypical in that the depositor receives the benefit of the insurance, but does not pay the insurance premium. All insured banks pay a fixed premium of 1/12 of 1 percent of deposits. The premium does not vary, regardless of the riskiness of the bank. Historically, claims against the insurance fund have been small, and the effective insurance premium has been reduced to about half of the stated rate.

Though depositors do not explicitly pay insurance premiums, it is only fair to expect those who benefit from insurance to pay in some way. To this end, banks may pass their insurance cost to customers in the form of lower deposit interest rates, higher service fees, or a combination of these and other costs. FDIC premiums help generate consumer confidence in the banking system, and this results in a relatively stable banking environment. Most important, FDIC premiums eliminate the risk of loss of insured deposits due to bank failure for any reason.

Entry Regulation

One way to prevent business failure is to restrict the number of businesses that are allowed to operate. Such restriction increases the franchise value of firms currently operating. This rule applies quite nicely to banking. The FDIC has *de facto* control over entry into banking because it is just about impossible to obtain a bank charter without deposit insurance. Using this power, the FDIC can protect (and may increase) the value of existing bank charters. This in turn protects the deposit insurance fund.

TABLE 4

FEDERAL DEPOSIT INSURANCE LIMITS

Date	Insurance Level
1934*	$ 2,500
1934*	5,000
1950	10,000
1966	15,000
1969	20,000
1974	40,000
1980	100,000

***FDIC Insurance became effective January 1, 1934. Coverage was raised to $5,000 on July 1, 1934.**

Source: FDIC Annual Reports, various editions.

Bank Examination

Another safeguard against bank failure used by the FDIC is bank examination. By continually monitoring a bank's records, operations, and management, the FDIC accomplishes at least two goals. First the examination process aids early detection of banks that may fail. Second, the FDIC is able to extract an implicit insurance premium. If banks are found to be taking excessive risks, they encounter regulatory interference. The overall result is a *de facto* variable insurance premium that is directly related to risk.

Deposit Rate Regulation

The FDIC sets deposit rate ceilings for insured banks that are not members of the Federal Reserve System and for FDIC insured mutual savings banks. The FDIC rate ceilings are coordinated with those of the Federal Reserve so that all banks face the same constraints. Rate ceilings limit the availability of funds to banks. The constraints also limit growth opportunities and the amount of risk banks may take. The availability of funds is limited because banks cannot compete with nonbank firms by offering higher prices (interest rates). Growth is limited because funds needed to fuel growth are not available. Risk may be limited because banks do not compete through price and therefore do not need the higher returns offered on riskier investments.

In recent years, deposit rate ceilings have not always been effective, and many economists viewed them as inequitable. During periods when market rates of interest were above legal rate ceilings, large depositors typically shifted funds from depository institutions to direct investment in money markets, while small savers invested in money market mutual funds. Those savers who did not shift their deposits from banks earned less than the "fair" market rate of return on their funds.

Adding to the case against deposit rate ceilings, research by economists provided little evidence that bank failures in the 1930s were caused by excessively high interest rates on deposit accounts as was once believed to be the case. To restore price competition to deposit markets and to allow banks to compete more effectively against money market mutual funds, Congress passed the Depository Institution Deregulation and Monetary Control Act of 1980. Among other things, the Act provided for the phase-out of time and savings deposit interest rate ceilings by 1986. In effect, the phase-out of deposit rate ceilings was accomplished with the introduction of Super-Now Accounts, which have no interest rate ceiling (though they do require a minimum balance of $2,500).

Disposition of Failing and Failed Banks

Despite the best efforts of the FDIC to prevent bank failures, banks can and do fail. Prior to failure, the FDIC has some powers to provide financial assistance, such as providing special assistance to a failing bank if (1) the bank is in danger of closing, and (2) the bank is essential in providing banking services to the community. As a practical matter, however, with over 14,000 banks in this country, it is difficult to establish these special circumstances and provide the needed financial assistance in time. As a consequence, the FDIC usually must deal with bank failures.

When a bank fails, the FDIC is responsible for its disposition and is appointed receiver for the failed bank. The options usually selected by the FDIC are (1) to allow the bank and its deposits to be acquired by another bank, (2) to close the bank and pay the depositors off, or (3) to recharter the bank and operate it as a Deposit Insurance National Bank (DINB). The FDIC is required by law to take the option that will cost least. In the case of a payoff, all insured depositors are usually paid within five to seven days. In an assumption, all deposits, including those that are uninsured, are assumed by the acquiring bank. Usually, the failed bank opens the next day under its new owner's name. Because both the assets and liabilities of the failed bank are assumed, and some assets have little value (e.g., defaulted loans), most assumptions require FDIC assistance. The amount of assistance is directly related to the amount of bad assets. If the assets of the institution are of low quality, the assistance may be so large as to make the assumption unattractive to the FDIC. If this is the case, a payoff may occur or a DINB may be formed.

DINBs are chartered and operated by the FDIC to meet the emergency banking needs of a community. A DINB is permitted to operate for a maximum of two years before it is taken over by another bank or by new owners. Former stock holders of the original bank (the failed bank) have the first opportunity to purchase the stock of a DINB. The DINB alternative has been used sparingly by the FDIC.

Private Insurance and No Insurance

The benefits of federal deposit insurance alluded to in the previous sections of this article are (1) the protection of insured depositors against loss, and (2) lower cost of funds for banks. These benefits help produce a stable banking system. The last decade has presented several situations that might have led to bank panics were it not for federal deposit insurance. For example, the banking crises caused by the financial difficulties of First Pennsylvania Bank in 1980 or Continental Illinois National in 1984 might have spread throughout the banking system if deposits had not been insured. Though small in size when compared to First Pennsylvania or Continental Illinois, the failures of Hamilton National or United American Bank of Tennessee might have caused serious regional banking problems if there had been no deposit insurance.

Two recent examples of bank panics are Home State Savings Bank of Cincinnati, Ohio, a privately insured institution which closed during March 1985, and Southern Industrial Banking Corporation of Knoxville, Tennessee, which failed in 1983. The failure of Home State led to the temporary closing of 70 Ohio thrifts whose deposits were insured by a state-sponsored, private insurance fund. The losses at Home State were thought to be large enough to exhaust that insurance reserve. As a result, depositors in the privately insured thrifts had little confidence that their funds were safe. Thus began a run on Home State's deposits, and subsequently, the state declared a thrift holiday that prevented depositors from withdrawing their funds for more than a week. The crisis was resolved in part by a new Ohio law that permitted limited withdrawal of deposits and required the closed institutions to apply for federal deposit insurance.

As part of the C. H. Butcher empire, Southern Industrial Banking Corporation (SIBC) collapsed in 1983. Deposits in SIBC were not insured, and the bankruptcy trustee is attempting to recover depositor funds. However, even though two years have passed since the failure occurred, little progress has been made, and reports suggest that the probability of significant recovery of funds is very small.

Conclusions

All kinds of businesses are subject to failure, and banks are no exception. Banks fail because of severe economic conditions, excessive unanticipated loan losses, excessive risk bearing, bad management decisions, and fraud, to name just a few reasons. The attention that is focused on failing banks indicates that bank failures are extraordinary events. They are extraordinary because uninsured creditors (depositors) are hurt; the efficient allocation of credit is interrupted; confidence in the banking system is shaken; and if the number of bank failures is large, the failures can destabilize the economy by contracting the nation's money supply. Large uncontrolled contraction in the money supply can lead to severe economic depressions.

While the consequences of bank failures are serious, cumulative bank failures which can destabilize the economy can be prevented by the Federal Reserve System fulfilling its role as lender of last resort to the banking system, and by the existence of a federally sponsored insurance system such as the FDIC. However, even in the presence of regulatory preventive measures, some banks do and will continue to fail.

In recent years, economists and regulators have turned their attention towards the preservation and promotion of a more competitive financial system. However, the goals of a high degree of bank safety and competition are in conflict with free market competition. The challenge for bank regulators is to find the proper degree of balance between bank safety and economic stability on the one hand, and an efficient banking system on the other. To have an efficient and competitive banking system, market forces must be allowed to purge from that system unwanted or inefficient producers of banking services. The trick, of course, is to prevent the failure of a single bank from becoming contagious and spreading throughout the banking system.■

Consolidating Financial Resources:

Interstate Banking

BANK AND TRUST CO.

Ronnie J. Clayton
and
David S. Kidwell

Interstate banking is emerging as one of the major issues facing the American financial scene during the 1980s. The controversy is being led by large American banks which already have full service offices in countries throughout the world and now desire to have full service banking throughout their own countries as well. They cite the deregulatory spirit of the times, and, more importantly, the ability of nonbank interlopers such as American Express and Sears to expand unrestrained geographically and productwise.

Smaller community banks, on the other hand, are fearful that interstate banking will place them at a competitive disadvantage or that large out-of-state institutions could invade their local market areas with such an extensive array of financial products and superior resources that they might be unable to compete.

Lacking any response from Congress, and worrying about an adequate flow of credit to their own states, many state legislatures are considering interstate banking bills. Currently, 11 states have passed interstate banking legislation and more than 20 states are in the process of preparing legislation.

I. BANKING REGULATION

Historical View of Geographic Expansion Regulation

Branch banking did not become a national issue until the passage of the National Currency Act of 1863, which provided for the chartering of national banks and established the Office of the Comptroller of the Currency (OCC) to supervise and regulate the newly created national banks. Branch banking was not mentioned in the Act, and its successor, the National Bank Act of 1864, and all subsequent interpretations of the Act assumed that national banks were prohibited from branching. This view was consistent with the public concern that concentration of economic power among a few large banking organizations might allow these banks to exercise undue influence over the allocation of credit. However, over time, this interpretation created competitive inequities between state and nationally chartered banks as states began giving branching powers to banks that they chartered.

In 1927 Congress adopted the McFadden Act, which authorized national banks to branch within their home city limits if state law permitted branching. Though the McFadden Act has become the symbol of restricting the geographic expansion of banks, it actually liberalized branching restrictions on nationally chartered banks.

However, even with limited branching privileges, national banks still remain at a competitive disadvantage relative to banks in states which permitted branching beyond a bank's city limits. To remedy this inequality, the Banking Act of 1933 (Glass-Steagall Act) included a provision to allow national banks to have branching powers identical to those of their state-chartered competitors. Thus, the Glass-Steagall Act effectively set state boundaries as the limit for bank geographic expansion and gave state legislative bodies the power to determine the structure of banking within their own states.

Prior to 1956, there was no unified legislation regarding bank holding companies. As a result, bank holding companies were often formed to circumvent the legal restraints on geographic expansion imposed by state laws and the McFadden Act. Originally, most bank holding companies focused their efforts on de facto branching within states. With time, however, some large bank holding companies began to acquire banks in other states.

The Bank Holding Company Act of 1956 was the first federal legislation to focus exclusively on bank holding companies. The Act was intended to restrict the business activities and geographic expansion of bank holding companies (BHCs), and placed the responsibility for their control with the Federal Reserve System. Of importance is Section 3(d) of the Act, known as the Douglas Amendment, which prohibits multibank holding companies from acquiring a bank in another state unless the laws in that state specifically authorize such acquisitions.

The 1956 Act, which covered only multibank holding companies, was broadened in 1970 to cover one-bank holding companies and to establish more careful guidelines for permissible "nonbanking" activities for bank holding companies. Of significance, the term "bank" was narrowly defined as any institution which accepts demand deposits *and* simultaneously makes commercial loans. Thus, nonbank subsidiaries of BHC such as finance companies can perform many of the functions of a commercial bank while operating across state lines. Furthermore, the door was left open for the emergence of "nonbank banks."

II. WHY BANKING IS CHANGING

Today's financial institutions operate in a rapidly changing environment caused in part by technological innovation, deregulation, greater consumer sophistication, and high and volatile interest rates. There are numerous economic forces driving the move toward interstate banking.

Technological Innovation

Various factors have contributed to the change in bank structure; however, technology is the most influential in pushing the financial services industry toward change by breaking down traditional geographic boundaries and causing regulations either to change rapidly or to be circumvented. Technology is also making it possible for new firms to enter the financial services industry with an array of new and innovative products.

In the last decade, electronic computers have become capable of processing immense amounts of information quickly and at a very low cost for an almost instantaneous transfer of financial data between points. Furthermore, technologies that have evolved in various areas such as computers and telecommunications are converging, allowing gains in one area to provide benefits to other areas so that services can be enhanced or costs decreased, or both. Thus, the electronics revolution provides the potential for increased efficiency and a variety of new and/or improved consumer financial services, even on a nationwide basis.

III. THE MAJOR INTERSTATE BANKING ISSUES

Given the new technology, many firms in the financial services industry believe they can achieve significant economic gains by increasing the scale and scope of operations through geographic expansion. On the other hand, regulators are concerned with the economic consequences of geographic expansion and the possibility of increased concentration of economic resources.

Economies of Scope and Scale

Economies of scope arise when the joint production of a product or service is less costly than the total cost of providing the product or service independently. For example, firms have taken advantage of scope economies by forming financial conglomerates to offer an array of complimentary financial services. If a firm does not have the qualities needed to form a conglomerate, affiliation with a network of financial firms can accomplish the same goal.

Economies of scope also impact on bank regulations, which are designed to force an outcome believed to be socially desirable. Regulations also impose a cost on the regulated industry, and banking is no exception. However, if economies of scope are sufficient, financial conglomerates and networks will develop methods to avoid the cost associated with regulation. In fact, much of the recent change in the financial services industry appears to have evolved from attempts to avoid regulation through the application of technology.

Scale economies reduce unit cost as the level of production (size) increases. If interstate banking is allowed, larger banks are likely to develop. If larger

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banks can operate more efficiently than smaller banks, they will provide consumer services at a lower cost, displacing smaller banks from the market. Fortunately for small and medium-sized banks, the available evidence indicates that large banks do not have an absolute cost advantage over small banks.[1] Therefore, it is not likely that larger banks will dominate smaller banks if legal restrictions on interstate banking are relaxed.

Competition and Concentration

Perhaps the most controversial issue in the interstate banking debate is the impact that interstate banking may have upon structure and competition within bank markets. Economic theory holds that a correlation exists between the degree of concentration in a market and actions taken by competitors. Therefore, the structure of a market determines the degree of competition in the market, and the degree of competition affects the performance of firms with respect to the quantity of goods and services produced, the efficiency of production, and the price charged in the marketplace. Of course, the key element in this chain of events is competition.

To determine the degree of competition in a banking market, we must consider both the products produced and the geographic market for the products. Banks are multiproduct firms, and different bank products have different geographic markets. For example, most consumer financial services tend to be sold in local markets; the market for middle-sized business loans and agricultural loans is regional; and the market for large prime rate loans is nationwide. Because of the local nature of consumer financial products, economists are most concerned about competition at the local level. Historically, local markets have been protected by regulators from any entry of banks outside the local market area. Due to this protection, local markets may not be as competitive as regional or national banking markets.

The impact of interstate banking on local markets depends on the manner in which entry is accomplished. If entry into a local market is *de novo*, a new competitor has entered the market, and competition is likely to increase. If entry is by acquisition, concentration may increase in the local market, leading to less competition between firms. Because consumer financial services are sold in local markets, it is important that regulators do not allow any financial institutions to monopolize a local market area. Thus, banks or other financial service firms should be forced to spread out over numerous local markets and not be allowed to concentrate in a single local market.

The best evidence regarding the impact of market entry by acquisition is to look at studies of holding company acquisitions. Recent studies reported that holding company affiliations increased the market share of small banks and decreased the market share of large banks; in both cases, changes in concentration ratios were small.[2] More specifically, when a small bank became affiliated with a holding company, the smaller bank was able to compete more effectively against larger banks in the market. This result may have occurred because the small bank could now offer additional products and services made possible through affiliation. The finding also indicated that small banks compete more aggressively when larger banks in their market are affiliated with a holding company.

Another factor to consider is the competition banks face from other financial service firms. Banks must compete with other banks, thrifts, credit unions, finance companies, mortgage bankers, brokerage firms, financial conglomerates, and ATM networks. Given the variety of firms and the expanded product powers of nonbank depository institutions, it does not seem likely that changes in bank structure will materially affect overall concentration at the local level. Simply stated, local markets are becoming increasingly competitive as nonbank firms, many of which face few legal restrictions, begin entering the local banking markets with consumer financial products.

Empirical research has found that greater branching authority contributes to greater concentration at the state and SMSA level. Removing barriers to interstate banking is likely to produce the same results. Since state boundaries by and large do not constitute market boundaries, concentration is likely to increase at the national level as well.

TABLE 1

BANK STRUCTURE OF THE UNITED STATES AND OTHER INDUSTRIAL COUNTRIES (1982)

Country	Number of Commercial Banks	Number of Banking Offices	Population Per Bank Office	Share of Deposits at 5 Largest Banks (Percent)
United States	14,451	54,235	4,177	19.2
West Germany	243	41,000	1,506	61.8
Canada	11	7,425	3,296	77.7
United Kingdom	35	14,000	4,004	56.8
Japan	86	13,420	8,836	34.5
France	206	40,200	1,347	76.1
Italy	1,170	11,970	4,787	35.1
Switzerland	432	5,501	1,153	46.7

Source: "The New England Experiment in Interstate Banking," *New England Economic Review*, March/April 1984.

Most economists are not alarmed by this. As Table 1 shows, the United States is currently among those countries with the lowest concentration of bank deposits. More importantly, except for consumer banking, most bank products have regional or national markets that are open to many competitors. For example, loan production offices and loan calling officers typically sell bank services at considerable distances from the bank's home office.

Safety and Soundness of the Banking System

Another issue of national concern is whether branching or interstate banking contributes to a higher rate of bank failures. When banks fail, there are potential ramifications for society. If the bank is small, the effect of failure is likely to be local. If a large bank fails, repercussions may be felt throughout the financial markets and the entire economy.

Evidence shows that states with more liberal branching laws have lower failure rates than unit banking states. In branch banking states, however, the average deposit size of failed banks is larger. In addition, the FDIC problem bank list is larger for branch banking states relative to unit banking states, but lower for holding company-affiliated banks compared to unit banks.

Furthermore, multi-office banks should have better geographic diversification than unit banks, resulting in lower business risk for a bank. On the other hand, branching bank and holding company systems are typically larger than unit banks, and as a result, they usually have greater leverage and riskier portfolios than unit banks. Finally, studies of contemporary bank failures indicate that the primary reason for most failures is illegal managerial manipulation; the failures are not related to the number of offices of the bank.

Mobility of Funds

In today's financial markets, technology exists to move funds efficiently throughout the economy. At the national level, this is a desirable feature because funds should be channeled to the best investment opportunities. Financial markets such as the federal funds market help achieve this economic objective, as do branching and bank holding company systems.

A concern is whether multi-office firms better allocate credit than unit banking. In studying the question, we should consider (1) whether funds are transferred from areas of low demand to high demand, and (2) whether local credit needs are met or whether funds are transferred in a discriminatory manner from the local community to the bank's home office city. In general, research shows that multi-office banks transfer a greater proportion of loanable funds to areas of higher credit demand than do unit banks using the correspondent banking system. The probable reason for the greater transfer of funds is lower transaction cost. Furthermore, multi-office firms appear to do a larger proportion of business with local business firms (as opposed to consumers) than do unit banks. Finally, when fund transfers do occur, funds tend to flow between non-urban areas rather than between non-urban areas and the bank's home office city.

Quality of Banking Services

Whether interstate banking will provide higher quality service to consumers is a gray area. Those who favor interstate banking believe large banks offer a broader array of products and services than do smaller banks. Furthermore, interstate banking allows a mobile public to obtain financial services over a broader geographic area, implying greater convenience. On the other hand, others argue that small banks can offer more personalized banking services and can respond more quickly to changing consumer preferences. Also, most of the bank services that small banks cannot provide themselves can be obtained through correspondent relationships.

Viability of Small Banks

A consolidation of banking resources usually occurs when geographic restrictions on banking are relaxed. Since some small banks will be absorbed by larger banks, the long-term survival of the remaining small banks comes under question. To examine viability of small banks, the experience in two states with state-wide branching – California and New York – is examined. If small banks are not viable, few should exist in these states.

California is a state with a long history of state-wide branching. Bank of America, which has the largest branching network in the country (over 1,000 branches), also resides in the state. Despite these facts, over 75 independent unit banks exist in California, which is among the leading states each year in the number of newly chartered banks. In New York State, where branching laws were liberalized in 1962, small banks have not been driven from the market by large New York City banks. In fact, even though competition has become keener in local markets, efficient small banks have continued to compete effectively against larger banks that enter their market area.

IV. COMMERCIAL BANKS INTERSTATE ACTIVITY

State boundaries have little economic meaning and, in most cases, reflect accidents of history and geography. Businesses have freely operated across states for several hundred years and, for that matter, so have many nonbank competitors. However, it would be incorrect to indicate that banks have not participated in interstate financial activities. As Table 2 shows, most of the nation's largest bank holding companies have a significant number of out-of-state offices. These holding companies use a variety of avenues to provide banking and financial services across state lines.

Edge Act Corporations. Since 1919, banks have been allowed to form Edge Act Corporations in states other than their home states to engage in international business transactions. As of December 31, 1982, there were 143 domestic Edge Act Corporations in the United States that could accept deposits

TABLE 2

OUT-OF-STATE OFFICES OF THE 10 LARGEST BANK HOLDING COMPANIES (1980)

Bank	Nonbank Subsidiary Office	Banking Offices	Total Offices	Total States*
Manufacturers Hanover	471	7	478	30
Security Pacific	427	7	434	36
Citicorp	419	25	444	40
Bank of America	360	15	375	41
Chemical Bank	135	6	141	23
First Chicago	13	14	27	10
Chase Manhattan	13	4	17	16
Continental Illinois	9	12	21	10
Banker's Trust	1	8	9	4
J. P. Morgan	1	5	6	4

*Including the District of Columbia

Source: Manufacturers Hanover Corporation, "The New Reality," May 14, 1981.

and make other bank transactions without regard to state boundaries, provided the transactions are for international business.

Loan Production Offices. National banks and many state-chartered banks expand their business activities across state lines through loan production offices (LPOs), offices from which banks make loans subject to the requirement that the home office approves the loans. Banks use loan production offices mostly for commercial lending – prime-rate and middle-market customers. Currently there are more than 300 LPOs operating across state boundaries.

Nonbank Subsidiaries. As previously discussed, bank holding companies (BHCs) can engage in a wide range of bank-like services across state lines through nonbank subsidiaries. Mortgage banking and finance companies are the two most important financial activities of nonbank subsidiaries. Banks also achieve interstate banking presence through leasing companies, companies that service loans, trust companies underwriting credit life insurance, and data processing. Table 3 shows a list of interstate nonbank subsidiaries for the U.S.

Foreign Banks. Prior to 1978, foreign banks were virtually unregulated by the federal government and could branch across state lines where domestic banks could not. Currently, there are more than 160 foreign banks operating in the U.S., and about half of these have offices in more than one state.

Acquisition Through Failure. The Garn-St. Germain Act of 1982 provides that banks can acquire failing depository institutions across state lines. For example, Citicorp of New York in September 1982 acquired Fidelity Savings and Loan of California and its 90 branches (now called Citicorp Savings). Though the acquisitions made under the Garn-St. Germain Act are not large in numbers, they are important because they represent significant footholds for relatively large banks in important banking markets.

As one can see, the inroads that banks have made into interstate banking constitute a sizable end-run around geographic restrictions imposed by Congress. In all, commercial banks control more than 8,000 interstate banking offices.

V. THE PRESENT STRUCTURE OF TENNESSEE BANKING

There are approximately 300 banks operating in Tennessee. Table 4 shows the distribution by deposit size. As can be seen, by most standards, the majority of Tennessee banks are small; nearly 70 percent are $50 million or less in deposit size. Only 1.5 percent (five banks) of Tennessee banks are larger than $1 billion, even though banks have been allowed to branch countywide since 1925 and bank holding companies have been allowed to enter markets statewide since 1974.

Table 5 shows the deposit size distribution and other information on the 10 bank holding companies operating in the state. Five of the holding companies have deposits in excess of $1 billion, and they control more than 50 percent of the state's total bank deposits. Only six of the holding companies have undertaken significant geographic expansion, most of which has been in large metropolitan markets.

Bank Holding Company Affiliates

An issue of interest is the impact that multibank holding companies have had upon local market concentration ratios, and whether a holding company's entry into local markets is detrimental to independent banks. To answer these questions, the authors examined the market share of six counties where multibank holding companies entered the local market. The analysis began in 1974, the first year bank holding companies could expand statewide. Counties were considered proxies for local markets, and county markets that experienced extraordinary events (such as the bank failures in Knox County) or those that had recent bank holding company affiliation activity were excluded from the sample. The state's two largest banking markets – Davidson and Shelby Counties – are analyzed separately for reasons explained later.

Table 6 shows countywide market share for the largest independent bank (or one bank holding company) in the county, and for the multibank holding company affiliate. As shown, affiliates of large bank holding companies have generally lost market share since 1974, while the largest independent banks have gained market share. Given this evidence, it appears that independent banks are not overpowered by multibank holding companies.

Bank Holding Companies Lead Banks

Table 7 shows the market share for independent banks in the state's two largest banking markets – Davidson (Nashville) and Shelby (Memphis) Counties. These areas are also the home market for the five largest multibank holding companies in the state, each having total deposits in excess of $1 billion. Since 1974, when statewide expansion by bank holding companies was allowed, these firms had increased their statewide market share from 44.3 percent to 50.8 percent by year-end 1983. Clearly, these large banks represent formidable competition for banks in their home market area. The question of interest is this: how have independent banks fared in the home market of such formidable competitors?

As Table 7 shows, in most instances market share declined for the lead bank in a bank holding company in its home office market. The only exception was Third National Corporation of Nashville, whose market remained relatively constant over the 1974-to-1983 time period. On the other hand, the independent banks in almost every instance significantly improved their market share, again illustrating the ability of independent banks to survive and grow even when surrounded by the state's largest commercial banks.

TABLE 4

SIZE DISTRIBUTION OF TENNESSEE BANKS (1983)

Deposit Size ($ Millions)	Number of Banks	Number of Banks: Percentage	Number of Banks: Cumulative
1 to 10	34	10.3	10.3
10 to 50	196	59.4	69.7
50 to 200	82	24.9	94.6
200 to 1,000	13	3.9	98.5
1,000 or more	5	1.5	100.0
TOTALS	330	100	

Source: Sheshunoff & Company, *The Banks of Tennessee*, 1984.

TABLE 3

INTERSTATE NONBANK SUBSIDIARIES IN THE U.S.

Type of Activity	Number
Mortgage Banking	623
Finance Company	4,613
Credit Cards	6
Factoring	48
Industrial Bank	125
Servicing Loans	995
Trust Company	68
Financial Advisor	92
Leasing	580
Investment in Community Welfare	12
Data Processing	54
Insurance Agent	2,440
Underwriting Credit Life	1,118
Management Consulting	10
Money Orders, Travelers Checks	177
Check Verification	3
Audit Services	5
TOTAL	10,969

Source: Federal Reserve Bank of Atlanta.

The Impact of Bank Failures on Tennessee Banking

Unfortunately, Tennessee has the dubious distinction of having two banks among the ten largest bank failures in United States history. The Hamilton National Bank of Chattanooga is sixth, with $412 million in assets when it failed in February 1976. More recently, United American Bank of Knoxville is third, with $760 million in assets when it failed in February 1983. Both of these banks were acquired by First Tennessee, a Memphis bank holding company, with assistance from the Federal Deposit Insurance Corporation.

The consequences of these bank failures and subsequent acquisitions were (1) to increase the concentration of financial resources at the state level and (2) to give First Tennessee, the state's largest bank holding company, a significant competitive presence in two of the state's largest banking markets, Hamilton and Knox Counties. More specifically, in 1974, First Tennessee's share of the state market was 10.1 percent. Today, because of acquisitions by purchase and failure, it controls nearly 15 percent of the state's deposits.

However, many difficulties arise when banks acquire failed banks. Among the problems created are lack of consumer confidence, loss of local deposit funds, and the task of improving the failed bank's loan portfolio. First Tennessee appears to have experienced many of these problems, since the large failed banks they have acquired have lost local market share.

Interstate Banking in Tennessee

Banking markets in Tennessee are significantly affected by out-of-state banks and other financial firms. Data on the dollar amount of business done by these firms is not readily available. However, as of year-end 1982, out-of-state firms had 117 consumer finance offices, 38 mortgage banking offices, and one trust company, all of which were competing for retail credit business in the state. In wholesale markets, out-of-state firms have three leasing offices and 14 loan production offices.[3] In addition, nationwide firms such as

The primary advantages of regional reciprocal legislation will be banking organizations of a size to compete with large money-centered banks and the integration of the financial and commercial markets.

Sears, J. C. Penny's, Merrill Lynch, and Shearson-American Express are providing credit and selling other financial services to consumers. Thus, Tennessee banks already face significant competition from financial firms outside the state.

VI. POSSIBLE LEGISLATIVE OPTIONS

In dealing with interstate banking, there are a variety of avenues open to state legislatures that could be initiated in Tennessee. Options range from no action at one extreme to opening borders to all financial organizations at the other.

No Legislative Action

One must not confuse the choice of taking no legislative action with maintaining the status quo in banking. Taking no action would mean a continuation of the present trend in banking: banks would continue to face competition from nonbanking activities of bank holding companies, LPOs, and relatively unregulated financial service firms. Also, competition will continue to increase from thrifts as they use their expanded asset and liability powers granted under the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St. Germain Act of 1982. Thus, even if no legislative action is taken, competition in local markets will probably continue to increase as nonbank firms enter those banking markets.

Regional Reciprocity

Regional reciprocity represents a middle ground between no legislative action and the various nationwide options. Several states in the Southeast and Northeast have recently passed legislation that allows entry of banks from outside the state but within the region, if the other state allows reciprocal entry.

The primary advantages of regional reciprocal legislation will be banking organizations of a size to compete with large money-centered banks and the

TABLE 5

BANK HOLDING COMPANIES IN TENNESSEE (1983)

Bank Holding Company	Deposits ($ Millions)	Percentage of State Deposits	Cumulative Percentage	Number of Affiliates	Number of Counties Operating in
1. First Tennessee National Corporation	$3,598	14.45	14.45	15	16
2. Third National Corporation	2,954	11.86	26.31	9	10
3. First American Corporation	2,852	11.45	37.76	9	10
4. Commerce Union Corporation	1,906	7.65	45.41	10	11
5. Union Planters Corporation	1,334	5.36	50.77	3	3
6. Tennessee National Bankshares	265	1.07	51.84	5	6
7. First American Bankshares[1]	247	0.99	52.83	1	1
8. Barrettville Bank & Trust Company	153	0.61	53.44	1	2
9. Germantown Bankshares	58	0.23	53.67	1	1
10. FPB Corporation	45	0.18	53.85	1	1

Note: (1) First American Bankshares is based in Washington, D.C., and owns twelve banks; only one bank, Valley Fidelity of Knoxville, is located in Tennessee.

Sources: State of Tennessee Department of Financial Institutions, *Annual Report*, 1984; Federal Reserve Bank of Atlanta; Sheshunoff & Co., *Banks of Tennessee*, 1983 and 1984.

TABLE 6

THE IMPACT OF BANK HOLDING COMPANY (BHC) AFFILIATES ON COUNTY-WIDE MARKET SHARE

County Major City	Independent Bank/ BHC Affiliate	Market Share in Percentage			
		1974	1976	1980	1983
Bradley **(Cleveland)**	**Cleveland Bank & Trust**	**27.5**	**27.8**	**28.9**	**29.6**
	Cleveland National[1]	**33.5**	**31.2**	**26.8**	**24.1**
Greene **(Greeneville)**	**Greene County**	**48.6**	**48.0**	**47.9**	**50.8**
	First National[2]	**39.7**	**35.9**	**34.5**	**32.7**
Hamblin **(Morristown)**	**Bank of Commerce**	**40.7**	**43.7**	**38.7**	**36.6**
	Bank of Morristown[3]	**17.6**	**15.8**	**18.4**	**19.4**
Hamilton **(Chattanooga)**	**Pioneer**	**9.7**	**15.3**	**13.4**	**15.8**
	Hamilton National[4]	**46.6**	**26.4**	**28.9**	**32.1**
Montgomery **(Clarksville)**	**First National**	**39.3**	**38.1**	**35.1**	**38.7**
	First Trust & Savings[5]	**27.2**	**27.7**	**27.2**	**25.5**
Rutherford **(Murfreesboro)**	**Murfreesboro Bank & Trust**	**42.0**	**44.7**	**45.0**	**59.4**
	Commerce Union[6]	**29.4**	**27.0**	**30.6**	**23.3**

Notes:
1. **Acquired by First American in 1974**
2. **Acquired by Commerce Union in 1973**
3. **Acquired by First Tennessee in 1972**
4. **Acquired by First Tennessee after failure in 1976**
5. **Acquired by Commerce Union in 1974**
6. **Acquired by Commerce Union in 1974**

Source: Sheshunoff & Co., *Banks of Tennessee*, various editions.

integration of the financial and commercial markets. Larger regionally controlled banking systems may better serve the needs of a region's middle market firms and may aid in attracting such firms to the region. In addition, consumers may find bank services more convenient as banks expand into natural markets that cross state lines. However, community banks and small regional banks will probably continue to provide much of the consumer banking needs in the states, particularly in rural areas.

Regional Reciprocity with a National Trigger

Legislative action which takes the form of regional reciprocity with a national trigger allows banks from other states in the region to enter the state until the trigger becomes effective. Thereafter, banks from throughout the United States may enter through reciprocal agreements or without them, depending upon the structure of the legislation. The overall changes in banking will be much the same as with regional reciprocity without a national trigger, except some of the changes may occur after the trigger becomes effective.

Community banks and small regional banks will probably continue to provide much of the consumer banking needs in the states, particularly in rural areas.

Nationwide Banking

The effect on banking of national reciprocity or unrestricted nationwide entry is likely to be parallel to those of a national trigger. The primary effects would be to increase competition for acquisition candidates and to increase the availability of financial services. The major difference between national reciprocity and unrestricted entry would be in degrees and timing. Unrestricted entry would increase competition for acquisitions due to a greater number of potential competitors and may speed up the competitive process so that changes in bank markets may come more quickly.

Avoiding Excessive Concentration

Interstate banking has the potential to increase concentration at the national and local levels. The degree of increased concentration will depend upon how interstate banking is allowed to proceed. Though national concentration is not thought to be an issue, it can be dealt with through current antitrust laws or concentration limits specified by Congress.

At the state and local market level, there are options open to state legislatures to deal with concentration of financial resources. States are given wide latitude by both the courts and Congress in regulating their economies. For example, a provision might be patterned after state laws such as the New Hampshire law which prevents any banking organization from exceeding a specified percent of the state's deposits. Also, concentration limits could be established for the state and local (county) markets. Such a provision would prevent a single banking organization from dominating a market and insure vigorous competition.

> **Converging technology and economies of scope provide the wherewithal for both banks and nonbank competitors to meet consumer demands efficiently over a large geographic area.**

VII. SUMMARY

The financial services industry has been guided to the brink of interstate banking by the combined impact of economic and technological factors. In today's economic environment, consumers are demanding a broader and more market-oriented range of financial products and services. Converging technology and economies of scope provide the wherewithal for both banks and nonbank competitors to meet consumer demands efficiently over a large geographic area.

Interstate banking will more than likely increase concentration at the state and national level. The consolidation that will take place will yield larger and more geographically diversified banks. Bank concentration and competition is not a major issue for bank products sold in regional or national markets. In local markets where most consumer financial products are sold, concentration could be a problem unless watched by bank regulators. That is, regulators should not allow any financial firm (bank or nonbank) to dominate a local market area; firms should be forced to spread out over numerous markets so local market concentration does not become excessive. Finally, small community banks should remain competitive, regardless of the structure of banking. Studies indicate that they do not appear to be at a cost disadvantage relative to larger banks, and they appear to retain strong consumer loyalty.

TABLE 7

MARKET SHARE OF INDEPENDENT BANKS IN COUNTIES WHERE LARGE BANK HOLDING COMPANIES' (BHCs) MAIN OFFICES ARE LOCATED

County (Major City)	Lead Bank BHC/ Independent Bank	Market Share in Percentage			
		1974	1976	1980	1983
Davidson (Nashville)	Commerce Union Corporation	26.81	29.39	26.29	25.60
	First American Corporation	35.25	32.71	32.09	30.49
	Third National Corporation	31.47	29.49	29.46	32.62
	Bank of Goodlettsville	1.01	1.26	1.67	1.84
	Citizens Savings Bank & Trust	0.30	0.29	0.59	0.79
	Nashville City Bank & Trust	2.90	3.70	4.54	6.47
Shelby (Memphis)	First Tennessee National Corp.	37.26	36.17	38.09	32.40
	Union Planters Corporation	33.97	29.08	22.68	26.91
	Barrettville Bank & Trust[1]	2.34	2.45	2.53	2.27
	Citizens Bank of Colliersville	0.14	0.16	0.20	0.22
	Commercial & Industrial Bank	4.81	4.71	5.32	6.57
	Community Bank of Germantown	--	0.38	0.96	1.12
	Midland Bank and Trust	4.95	5.67	6.43	7.07
	National Bank of Commerce	13.22	15.55	16.66	16.30
	Tri-State Bank	0.80	0.92	0.76	0.72

Notes: (1) Lead bank for two bank holding companies (See Table 2).

Source: Sheshunoff & Co., *Banks of Tennessee*, various editions.

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1. See *Economic Review*, Federal Reserve Bank of Atlanta, November 1982. See George J. Benston, Gerald A. Hanweck, and David B. Humphrey, "Operating Cost in Commercial Banking," pp. 6-21. For a discussion of bank structure and economies of scale, see George J. Benston, "The Optimal Banking Structure: Theory and Evidence," *Journal of Bank Research*: No. 4 (Winter 1973), pp. 220-237.

2. See James Burke, "Bank Holding Company Behavior and Structural Change," *Journal of Bank Research*, Vol. 9 (Spring 1978), pp. 43-51; John T. Rose, "Bank Holding Company Affiliation and Market Share Performance," *Journal of Monetary Economics*, Vol. 9 (January 1982), pp. 110-119; John T. Rose and Donald T. Savage, "Bank Holding Company De Novo Entry and Market Share Accumulation," *The Antitrust Bulletin*, Vol. 26 (Winter 1981), pp. 753-767; and B. Frank King, "The Impact of Local Market Entry by Large Bank Holding Companies," *Economic Review*, Federal Reserve Bank of Atlanta, November 1982, pp. 41-47.

3. Data Source: David D. Whitehead, "Interstate Banking: Taking Inventory," *Economic Review*, Federal Reserve Bank of Atlanta, May 1983, pp. 4-20. ■

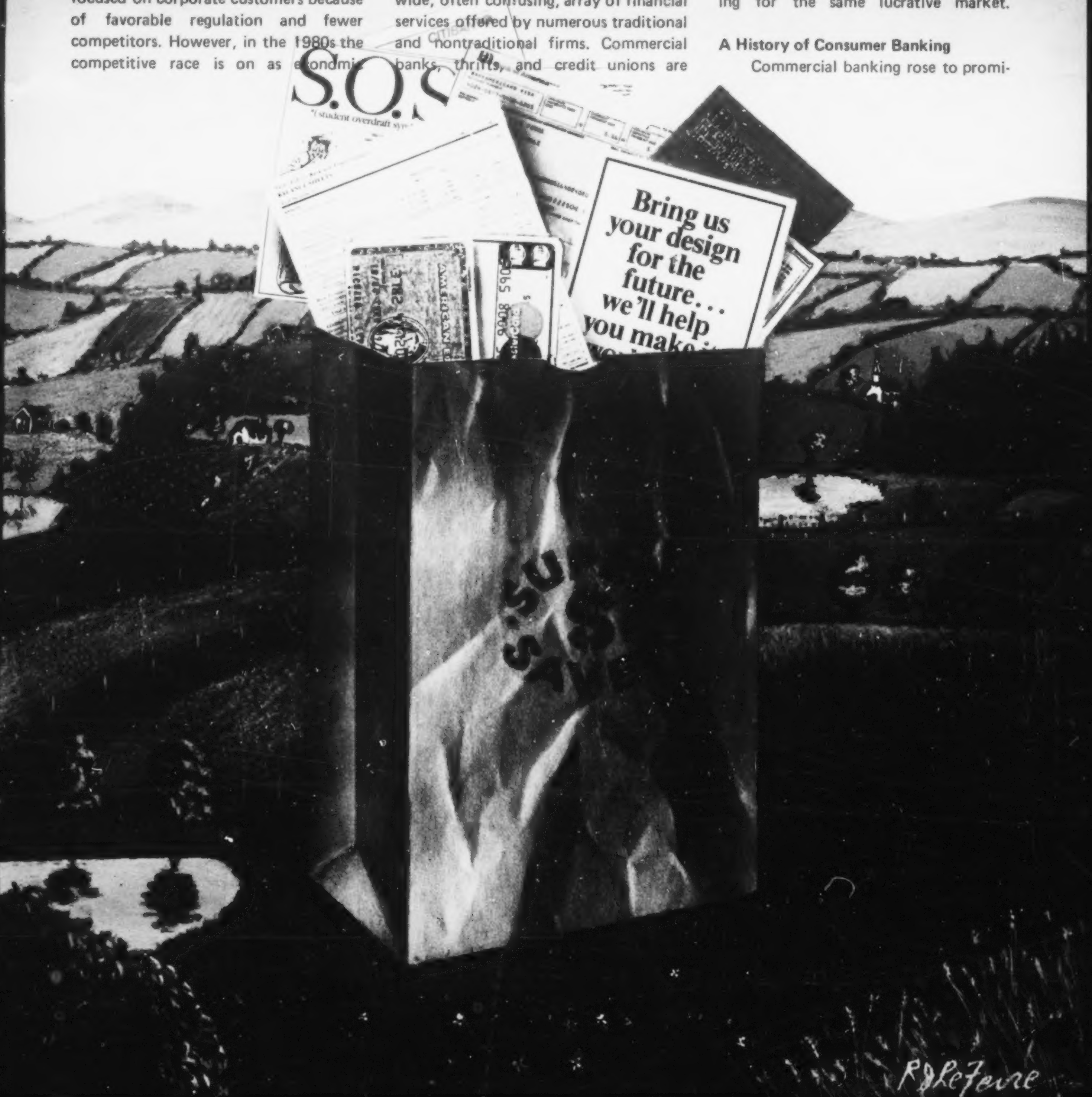
The Financial Services Industry and the Consumer: Competition, Innovation and Technology

Robert J. Rogowski

Prior to the 1980s, many financial service firms regarded consumers with benign neglect or disdain. Most firms focused on corporate customers because of favorable regulation and fewer competitors. However, in the 1980s the competitive race is on as economic forces unleash the free market in financial services. The result is that today's consumer can choose from a wide, often confusing, array of financial services offered by numerous traditional and nontraditional firms. Commercial banks, thrifts, and credit unions are active providers of consumer financial services, but securities, retail, and communications firms are competing for the same lucrative market.

A History of Consumer Banking

Commercial banking rose to promi-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nence following the Civil War, when people found that checks were more convenient than paper currency in handling transactions. However, consumers were generally ignored by commercial banks which confined themselves largely to making loans and accepting deposits from their commercial clients. To fill this void, thrift institutions were developed to meet the needs of consumers. Mutual savings banks offered deposits and made loans to small savers, while savings and loan associations pooled deposits to gather funds to make home mortgage loans.

The Federal Reserve Act in 1913 solved the problem of central check clearing, and banks soon controlled the national payment system. But even up to this period, consumer credit remained relatively unavailable until credit unions emerged. Edward A. Filene, a Boston merchant and philanthropist, organized the Credit Union National Extension Bureau in the 1920s to promote and spread the credit union concept. With a limit on the membership because of the common bond of a similar employer or profession, credit unions provided consumers with loans and deposits. Banks, meanwhile, began to develop into financial department stores, a trend which continued until the Great Depression.

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To prevent alleged bank abuses, the banking legislation of the 1930s (1) prohibited the payment of interest on demand deposits; (2) restricted the products which banks could offer; (3) imposed geographic limits; (4) imposed interest ceilings on savings deposits; and (5) instituted deposit insurance. These restrictions were successful in reducing the number of bank failures and were not unduly binding until the early 1960s.

Banks quickly adapted to the changing environment. For example, when corporate treasurers began to economize in cash management and minimize demand deposit balances in the early 1960s, Citibank responded by devising the negotiable certificate of deposit. Other banks followed suit to attract corporate deposits. But, once again, the consumer was left out in the cold. With the appearance of inflation in the 1960s and interest rates higher than savings deposit rate ceilings, the climate cooled even further for the consumer saver. The corporate customer earned market rates, while the consumer, who did not have sufficient funds to meet the relatively high denominations of CDs and Treasury bills, earned the rate on savings accounts.

Regulation Q, the interest rate ceiling, became so uncompetitive for consumers that money market mutual funds were invented in 1971. Money market funds pool investor savings to purchase large-denomination money market securities and offer an alternative way to manage liquid assets. From $4 billion in 1974, money market funds exploded to over $200 billion in 1982.

As inflation continued, the opportunity cost of demand deposits rose, and, as a result, NOW accounts were authorized by bank regulators. In 1972 state-chartered mutual savings banks in Massachusetts and New Hampshire were allowed to offer NOW accounts, and then in 1976 all depository institutions in New England became eligible to offer checking accounts which pay interest.

Consumer Protection

Consumer protection regulation also appeared in the 1970s. To ensure a regular flow of funds and information to consumers and local businesses,

FIGURE 1

TOTAL ASSETS OF MAJOR FINANCIAL INSTITUTIONS, 1900-1982 (Billions of Dollars)

	1900	%	1929	%	1933	%	1945	%	1952	%	1960	%	1970	%	1982	%
Commercial banks	10.0	66	66.2	60	46.1	51	[illegible]	65	188.6	54	179.1	35	504.9	41	1600.1	40
Mutual savings banks	2.4	16	9.9	9	10.8	12	17.0	7	25.2	7	41.4	8	79.7	6	174.3	4
Life insurance Co.	1.7	12	17.5	16	20.9	23	44.8	18	73.4	21	115.6	23	200.9	16	567.5	14
Private pension funds	–		0.5	*	0.7	1	2.9	1	9.0	2	38.1	7	110.4	9	341.6	8
Municipal pension funds	–		0.5	*	0.8	1	3.0	1	7.5	2	19.7	4	60.3	5	264.2	7
Property & casualty insurance co.	0.6	3	4.7	4	3.6	4	7.7	3	15.9	5	26.2	5	49.9	4	204.6	5
S & L assoc.	0.5	3	7.4	7	6.2	7	8.6	3	22.5	6	71.5	14	176.2	14	706.0	18
Credit unions	–		–		–		0.4	1	1.5	1	6.3	1	18.0	1	86.8	2
Investment co.	–		3.0	3	1.3	1	2.7	1	6.1	2	17.1	3	47.6	4	89.5	2

Note: *Less than 1 percent.

Source: Raymond W. Goldsmith, *Financial Intermediaries in the American Economy Since 1900* (Princeton, N.J.: Princeton University Press, 1958), p. 75; Board of Governors of the Federal Reserve System, *Flow of Funds Accounts: Assets and Liabilities Outstanding.*

laws such as Truth in Lending, Community Reinvestment, and Equal Credit Opportunity were passed.

The latter half of the 1970s saw regulators approving new bank and thrift deposit accounts to obtain "a level playing field" with money market funds. Consumers grew enchanted with the innovation of money market funds. Public trust grew, due to the absence of any fund failure, and for many dialing 800 phone numbers in order to shuffle cash from one fund to another took the place of visiting a bank teller. While banks could reprice their loans to adjust for higher deposit costs, other institutions such as thrifts, savings and loan associations, and mutual saving banks were hamstrung with long-term mortgages and sought disaster relief in Washington.

The year 1980 saw relief for banks and thrifts in consumer banking with DIDMCA (Depository Institutions Deregulation and Monetary Control Act). This act extended NOW accounts to the entire U.S. while eliminating usury ceilings, and authorized a phase-out of deposit rate ceilings. Thrifts also became eligible to invest up to 20 percent of their assets in commercial paper, corporate debt securities, credit and loans, and other forms of consumer lending.

High, volatile interest rates continued to plague the financial markets in 1980-82. The thrifts continued to lose money, while money market funds and other new entrants to the financial services industry mounted. In an attempt to rescue the thrifts, Congress passed the Garn-St. Germain Act in late 1982. Thrifts were empowered to make commercial and consumer loans up to 10 and 30 percent of total assets, respectively. To help them compete with money market funds, the act enabled banks and thrifts to provide two deposit accounts: the money market deposit account and the Super-NOW. The money market deposit account became so popular that nonbanks sought to become limited service banks to offer this deposit and to obtain deposit insurance.

The Competitive Race

The financial services industry exists in a vigorously competitive environment. Money center banks are stretching the laws to move outside their home states; securities firms and others are forming financial conglomerates; foreign banks are expanding to the U.S.; and interstate banking barriers are crumbling with state laws and regulatory actions. Interstate banking is a market reality due to innovation and technology. Clearly, more competition means greater consumer choice and an evolving industry structure. The consumer is king, and entrepreneurs are bypassing dated laws to meet consumer desires.

FIGURE 2

ROA AND ROE FOR INSURED COMMERCIAL BANKS (1972-1981)

Year	Return on total assets (percentage)	Return on capital (percentage)
1972	0.77	10.80
1973	0.79	11.37
1974	0.78	11.21
1975	0.77	10.56
1976	0.66	10.87
1977	0.66	11.21
1978	0.85	12.31
1979	0.91	13.20
1980	0.75	13.02
1981	0.73	12.51

Source: FDIC, *Bank Operating Statistics*, various issues.

Figure 1 shows the major types of institutions and their market share of financial assets over time. Currently commercial banks hold approximately 40 percent of the total assets, while credit unions and investment companies comprise only 2 percent. However, the market shares of credit unions and investment companies have experienced rapid growth over the past decade.

In addition to these traditional players, many nontraditional firms have begun to offer financial services. Sears, Kroger, and Greyhound are just three of the newer competitors. Such firms are largely unregulated and are aiming directly at a consumer business.

The economic rationale behind the migration of nonfinancial firms to the financial service industry is the expected returns, which they believe are higher than those they are currently earning on their traditional lines of business. Banking promises high, stable profits, and nonbanks hope to repeat the performance of banks. Return on capital for banks compares favorably with the forecasts for other lines of commerce (see Figure 2); the shift of the U.S. economy from manufacturing to information-based industries may also explain this trend.

Although nonbanks are increasing their financial services activities, they have had a significant, if understated, presence for many years.[1] Figure 3 depicts the top 15 consumer lenders for 1981; nonbanks occupy nine of the 15 positions. Nonbanks are already substantial intermediaries which channel mortgage and short-term funds to consumers.

Money center banks smarting from foreign loan problems and desiring a stable, low-cost source of deposits are also vying for consumer business. In some cases, these big banks are mimicking nonbanks with their use of marketing and pricing. Interstate barriers are easily circumvented with credit cards and newer products.

Three Forces for Change

The financial services industry has grown more competitive in recent years due to inflation, technological developments, and consumer education. Inflation in the 1970s led to persistent high interest rates which caused nonbanks to invent products like the money market fund and the cash management account. Naturally, consumers grew accustomed to these high interest rates. Thus they were amenable to new deposit-like products which paid market interest rates. Inflation also caused banks to innovate by skirting existing laws in an effort to compete with non-banks.

Consumer education has played a large role in the evolution of financial services. Banks and thrifts with their geographic franchises protected by regulation were relatively slow to respond to changing consumer needs in the 1970s. However, deregulation and changing attitudes have permitted some banks to become strong innovators.

Inflation and consumer education notwithstanding, the most significant engine of change in financial services is technology. In the 1970s, many banks replaced human tellers with automated teller machines (ATMs). ATMs can handle more transactions per day, and, more importantly, they offer convenient 24-hour service.

Computers have enabled banks to build information data bases to improve lending and service to customers. A loan specialist can, for example, retrieve immediate information on a banking relationship to assess credit quality and, perhaps, cross-sell different products.

Computer technology has also improved the payment system of banking. Check clearing time is lower and efficiency is greater with electronic data processing. In addition, some banks combine with retail merchants to offer point-of-sale (POS) transactions, where a consumer uses a debit card in lieu of a check to pay for goods.

Although it is too early to call the winners and losers in the financial services race, banks should have a distinct advantage. Consumers trust them, and it is likely that they will continue to use banks to do most of their primary financial transactions. While credit unions and thrifts are making a strong run for the primary services, nonbanks are presently major providers of the kinds of secondary financial services which occur with less frequency.

The Product Menu of the Future

Today's consumer has myriad choices from numerous financial services firms. Figure 4 shows the various financial services and providers. Clearly, the insurance, retail, and securities firms have expanded their product menus greatly since 1960.

Given the heated competition, the consumer will see new products and delivery systems. The payments system will evolve dramatically by the year 2000, with traditional bricks-and-mortar branches becoming obsolete. With POS, ATM networks, telephone and home banking, future consumers may never enter the bank's premises except to open or close accounts. Gas stations, grocery, and convenience stores already offer POS and/or ATM access. When banks and nonbanks come to share their ATM and POS networks, consumers will have access to the purchasing power of their savings virtually anywhere in the U.S.

The advent of home and personal computers will provide the base for home banking, and numerous banks, retailers, and communications firms are either testing or operating home banking systems today.[2]

Deposit and loan products will also evolve as consumer needs change. The "vanilla" deposit will become only one of many flavors or varieties offered. Already, consumers require professional advice to choose a mortgage from the numerous types available.

In addition, marketing and product differentiation will grow in importance. Before deregulation, bank marketing meant offering the highest deposit rate allowable by law and a Christmas club. Most financial services appeared generic in the consumer's eye. Today, individual firms are endeavoring to create an image and distinguish their own firms from the rest.

Market segmentation in consumer banking is also a trend. Market segmentation reduces bank costs and aims products at the right customer. Many firms currently woo the upscale consumer with a high dollar volume of loans and deposits. Some private banking groups go so far as to identify certain occupations which tend to attract similar, high-income people and then devise strategies to offer products directly to these consumers. At the

FIGURE 3

TOP 15 CONSUMER LENDERS:*
COMBINED RETAIL MORTGAGE AND CONSUMER INSTALLMENT AND REVOLVING LOANS
AS OF DECEMBER 31, 1981
($ Millions)

	Mortgage Loans	Installment and Revolving Credit	Total
General Motors	–	$31,077	$31,077
BankAmerica Corp.	$10,196	9,703	19,899
Citicorp	5,925	9,556	15,481
Sears	2,830	9,528	12,358
Ford Motor		11,892	11,892
First Interstate Bancorp	4,325	4,418	8,743
Security Pacific Corp.	3,835	3,799	7,632
Beneficial Corp.	3,785	3,078	6,863
Wells Fargo & Co.	4,606	1,977	6,583
National Steel	5,859	71	5,930
General Electric	2,460	2,792	5,252
Prudential/Bache/PruCapital	–	5,142	5,142
American Express	74	5,035	5,709
Merrill Lynch	–	4,725	4,725
Crocker National Corp.	3,354	1,192	4,546

***Data for banks holding companies are domestic loans, nonbank company data are worldwide. National Steel loans and some of the Sears loans are those of its savings and loan subsidiaries.**

Source: Federal Reserve Bank of Chicago.

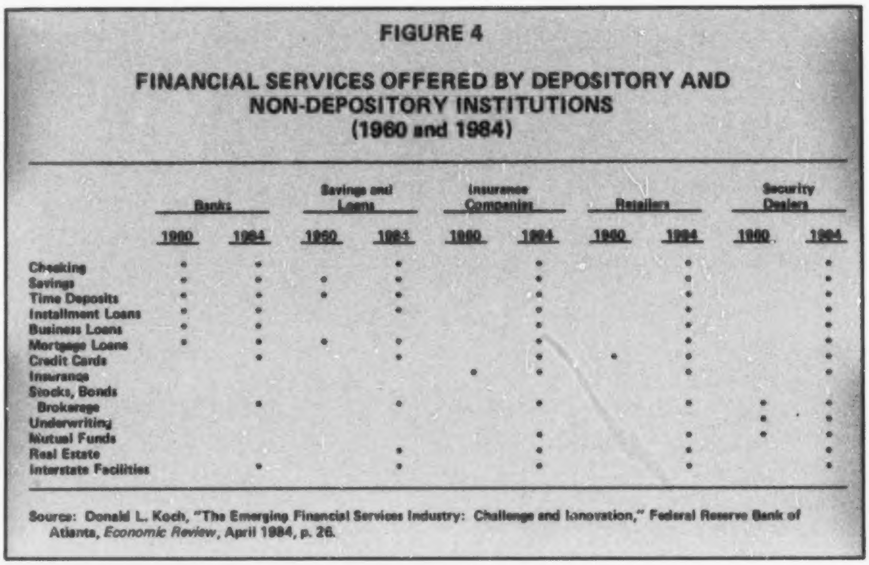

FIGURE 4

FINANCIAL SERVICES OFFERED BY DEPOSITORY AND NON-DEPOSITORY INSTITUTIONS (1960 and 1984)

	Banks		Savings and Loans		Insurance Companies		Retailers		Security Dealers	
	1960	1984	1960	1984	1960	1984	1960	1984	1960	1984
Checking	●	●		●		●		●		●
Savings	●	●	●	●		●		●		●
Time Deposits	●	●	●	●		●		●		●
Installment Loans	●	●		●		●		●		●
Business Loans	●	●				●		●		●
Mortgage Loans	●	●	●	●		●		●		●
Credit Cards		●		●		●	●	●		●
Insurance					●	●		●		●
Stocks, Bonds Brokerage		●		●		●		●	●	●
Underwriting									●	●
Mutual Funds						●		●	●	●
Real Estate				●		●		●		●
Interstate Facilities		●		●		●		●		●

Source: Donald L. Koch, "The Emerging Financial Services Industry: Challenge and Innovation," Federal Reserve Bank of Atlanta, *Economic Review*, April 1984, p. 26.

other end of the economic ladder is "lifeline" banking, the provision of banking services at low prices to lower-income individuals.

Lifeline banking is controversial, since many consumer advocate groups fear lower-income people will go without financial services. Legislative action is in progress in several states to force banks to provide free services to the young, elderly, or poor individuals. Some firms have devised products to appeal to this market directly. Money orders, check-cashing services, and basic, low-cost banking are offered by various firms.

Secondary financial services such as brokerage, real estate, and insurance are currently the domain of specialized firms, but the future promises a greater bank presence in these areas. Given the banks' images of trust, consumers may well opt to use banks rather than nonbanks for these services.

Through a Glass Darkly: The Future Structure

The shakeout of financial service firms may hinge on the availability of capital and technical expertise necessary to support electronic banking and offer broad product menus. The survival of the fit requires a market focus and attention to costs.

The likely winners and survivors of this shakeout are (1) national distribution firms, (2) low-cost producers, (3) specialty firms, and (4) community firms.[3]

National distribution firms will feature complete product menus with national operations, sophisticated transaction processing systems, and marketing clout. Citicorp, Merrill Lynch, Sears, and American Express are already jockeying for position in this national market.

Low-cost producers will focus only on one aspect of the delivery of financial services and price at discount levels. Unbundling the products and attaining a high volume of transactions will spell success or failure for these firms.

To obtain specialized service, boutique-like firms will aim at specific customer and product niches. Abandoning the concept of "full-service," the specialty firm will nurture an image of quality, even snob appeal, for a few services for a certain socio-economic class. Numerous banks such as Wachovia, Texas Commerce, and Bankers Trust already are limiting their market focus. Yuppie banks may proliferate as boutique firms grapple for this massive group of higher-income professionals.

Finally, the community firm will prosper in some geographically isolated, small markets which are less attractive to other types of firms. With personal computers available to all, community banks will be able to distribute other services downloaded from national or regional networks. Some experts claim the community bank will disappear, but those bank managers who rise to the challenge of redirecting the bank to meet the competition may actually expand rather than fail.

A Synthesis

In the past the consumer was largely ignored or tolerated by financial services firms as geographic, product, and price regulations restricted competition. But in recent years, inflation, technology, and greater consumer sophistication have led to deregulation on a grand scale.

Although banks, thrifts, and credit unions once had a corner on the consumer market, these traditional institutions now face stiff competition from securities, retail, and communications firms. With innovative applications of computer or telecommunications technology, banks and nonbanks vie for the payment system of the future. The product menu of the 1990s is mind-boggling, with the only bounds being creativity and consumer acceptance.

While the future looks bright for the consumer, the outlook for the individual financial service firm is frightening. The harrowing blast of competition may blow away a large number of traditional providers such as banks, thrifts, and credit unions. While a few national firms will emerge to offer a full array of services, most survivors or new entrants will target market segments. The consumer can only benefit, since one key to success is listening to the customer.

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1. H. Rosenblum, D. Siegel, and C. Pavel, "Banks and Nonbanks: A Run for the Money," *Economic Perspectives*, Federal Reserve Bank of Chicago (May-June, 1984), pp. 3-12.

2. D. Whitehead, "Firms Involved in ATM, POS, and Home Banking: A Survey," *Economic Review*, Federal Reserve Bank of Atlanta (July-August, 1984), pp. 13-19.

3. J. Bleeke, "Deregulation: Riding the Rapids," *Business Horizons* (May-June, 1983), pp. 15-25. ■

THRIFTS: PROBLEMS AND PROSPECTS

Ronnie J. Clayton
and
James A. Verbrugge

Thrift institutions developed because commercial banks have historically lived up to their names. Until this century commercial banks made nearly all their loans to and accepted deposits from commercial enterprises. As a result, individuals, particularly small savers, were not served by banks. Consequently, mutual savings banks (MSBs) were established to provide small savers with a way to invest funds and earn interest, and savings and loan associations (S&Ls) developed to provide consumers with housing finance. Collectively they are known as thrifts.

Like other business organizations, MSBs and S&Ls need capital for growth. Ready access to capital markets and the ability of financial institutions to use leverage implies that any financial institution can grow at very rapid rates. However, because both MSBs and S&Ls are predominantly mutually owned their primary source of new capital is from retained earnings. Thus, MSBs and S&Ls have exhibited slow growth when compared to commercial banks.

One of the primary functions of financial institutions is intermediation. Financial institutions accept deposits from many depositors and obtain funds from other sources. When institutions pool small deposits and lend them out in large blocks, this is called size intermediation. When they lend funds with short maturity for longer periods this is known as maturity intermediation. In entering such transactions, the financial institutions take risk, particularly when conducting maturity intermediation. If interest rates are stable, or if unstable rates are anticipated, the financial institution can charge a sufficient fee to compensate for the risk. Problems develop when interest rates increase unexpectedly and become volatile as they did in the late 1970s and early 1980s.

CURRENT STRUCTURE OF THRIFTS AND THE INDUSTRY

Many of the problems experienced by the thrift industry today result from the financial structure of the individual thrifts. Most of the liabilities of thrifts are relatively short term. In contrast, their assets, consisting primarily of their mortgage portfolio, are relatively long term and fixed rate. This maturity mismatch of assets and liabilities is very profitable in periods when interest rates are stable and the term structure of interest rates maintains an upward shape. However, when interest rates are volatile and/or the term structure becomes inverted, profits turn to losses that drain the capital base of the industry.

Prior to the 1970s, the main source of funds for thrift institutions was the savings of individuals, who deposited their savings for safe keeping and to earn an interest return. The rate thrifts paid on these funds was low, but so were other market rates of interest.

During the 1970s, inflation began

an upward trend that did not subside until the early 1980s. Market rates of interest followed the path of inflation, and soon thrift institutions found that they could not compete for funds because government regulations specified the rate of interest that could be paid on various liability accounts. Therefore, funds began to flow from thrifts to the many market alternatives – such as Treasury bills and money market mutual funds – that offered much higher yields with equal or little increase in risk. Of course, when it becomes economically imperative that regulations be circumvented, financial institutions find the means to do so. Disintermediation, the process described above where funds flow from financial institutions, is no exception. Financial institutions, including thrifts, began to maintain liquidity by participating in the markets for funds by purchasing Fed Funds, and by issuing Jumbo certificates of deposit and other marketable liabilities.

Purchasing liabilities in the money markets, however, was not the panacea for thrifts. The reason? Liabilities are only half of the picture. The asset portfolio must, likewise, reflect current market conditions if an institution is to remain financially healthy. Historically, the major portion of the assets of thrifts has been invested in single-family mortgages. When interest rates were relatively low and stable, thrifts, particularly S&Ls, made twenty- to thirty-year mortgage loans with contract rates of interest that reflected the market conditions and inflation expectations of the time. Even today, mortgages carrying contract rates less than the contract rate being offered on new mortgages constitute a large portion of thrifts' mortgage portfolios. This means that the average yield on thrifts' mortgage portfolios is significantly less than the rate they charge on new loans and not very different from the rate they pay on their liabilities.

Thrift Industry: Assets and Liabilities

Table 1 presents comparative balance sheet data for thrifts for 1960, 1970, 1980, and 1983. To understand the problems faced by thrift institutions, one must understand the nature of the assets and liabilities categories.

Assets

The assets held by thrifts include mortgages, short-term government securities, consumer loans, and some commercial loans.

Mortgages: The major asset of

TABLE 1

ASSETS AND LIABILITIES OF FEDERAL INSURED SAVINGS AND LOAN ASSOCIATIONS

	1960		1970		1980		1983	
Assets[1]	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Mortgage Loans	56.7	84.2	145.0	85.0	519.4	84.4	647.0	75.7
Other Loans	0.9	1.3	1.9	1.1	18.7	3.0	29.1	3.4
Real Estate Sold on Contract[2]	0.1	0.2	1.1	0.6	–	–	–	–
Real Estate Owned	0.2	0.3	0.7	0.4	2.3	0.4	7.7	1.0
FHLB Stock[3]	0.9	1.3	1.5	1.0	–	–	–	–
U.S. Government Obligations	4.3	6.4	12.0	7.0	–	–	31.8	3.8
Other Investments	0.6	0.9	0.9	0.5	–	–	65.5	7.7
Cash[4]	2.5	3.7	2.9	1.7	60.7	9.9	12.5	1.5
Fixed Assets	1.0	1.5	2.5	1.5	8.3	1.3	11.3	1.3
Other Assets (Net)	0.1	0.2	2.0	1.2	5.9	1.0	50.3	6.0
Total Assets	67.3	100.0	170.5	100.0	615.3	100.0	855.2	100.0
Liabilities and Net Worth								
Savings Accounts	58.5	86.9	141.6	83.0	498.6	81.0	667.3	78.0
FHLB Advances	2.0	3.0	10.5	6.2	46.5	7.6	57.2	6.7
Other Borrowed Money	0.2	0.3	0.3	0.2	16.8	2.7	41.1	4.8
Loans in Process	1.2	1.8	3.0	1.8	8.7	1.4	22.1	2.6
Other Liabilities	0.5	0.7	2.1	1.2	7.9	1.3	16.1	1.9
Deferred Credits	0.2	0.3	0.9	0.5	4.0	0.7	16.0	1.9
Specific Reserves	0.1	0.2	0.2	0.1	0.3	0.1	2.7	0.3
Net Worth	4.6	6.8	11.9	7.0	32.3	5.2	32.7	3.8
Total Liabilities and Net Worth	67.3	100.0	170.5	100.0	615.3	100.0	855.2	100.0

1. Dollar amounts are in billions.
2. Included in other Assets for 1980 and 1983.
3. Included in other Investments in 1983.
4. Includes FHLB Stock, U.S. Government Obligations, other Investments and Cash in 1980.

Source: Compiled from Federal Home Loan Bank Board tapes.

thrifts consists of loans secured by real estate. The majority of mortgages held by these institutions are fixed-rate contracts whose value fluctuates in an inverse manner with changes in interest rates. Since most of these mortgages were made when interest rates were relatively low, their value has declined as interest rates have increased. For the past two years, financial institutions, seeking to insulate themselves from the impact of interest rate changes, have been issuing a substantial proportion of their mortgages with adjustable interest rates. The contract rate of interest on these mortgages fluctuates directly with market interest rates so that changing interest rates have minimal impact on the value of the mortgage.

Securities: As shown in Table 1, the second largest investment made by thrifts is in investment securities held by MSBs and S&Ls for diversification, income, and to meet liquidity requirements. Liquidity requirements can be met by holding vault cash, deposits due from depository institutions, and "eligible" investment securities, which consist primarily of short-term government securities such as Treasury bills.

Other Assets: MSBs frequently sell excess cash to other financial institutions in the federal funds market. In addition, they have been empowered to make consumer loans and, in 1980 and 1982 they gained power to make some commercial loans.

The other assets of S&Ls are similar to those of MSBs. However, S&Ls only recently obtained the power to acquire a more diverse range of assets. Prior to 1980, for example, S&Ls could not acquire commercial paper or other corporate securities. They could only make consumer installment loans for mobile homes, home improvements, or education. In 1982, S&Ls gained power to expand the array of assets in which they invest and can now make commercial loans. They are also allowed to expand consumer lending and increase the percentage of assets invested in consumer loans.

Liabilities

The liabilities of thrifts consist primarily of time and savings deposits. Other sources of funds include private borrowings and loans from regulatory agencies.

Deposits: MSBs issue a wide array of deposit accounts. In addition to time and savings, many have long had the power to issue demand deposits. Recent legislation allows them to issue negotiable order of withdrawal (NOW), SuperNOW, and money market deposit (MMDA) accounts.

S&Ls have historically relied on passbook accounts and time certificate of deposit accounts for funds. They too have recently received the power to offer MMDA, NOW, and SuperNOW accounts, and they may also offer demand deposits to commercial entities.

Borrowings: A relatively small portion of MSB liabilities result from borrowings, primarily from private sources. MSBs issue repurchase agreements to their customers, purchase federal funds from other financial institutions, and issue mortgage-backed bonds.

Borrowings constitute a significant proportion of S&L funding. S&Ls can utilize the same sources of private borrowings as MSBs, and they can borrow from the Federal Home Loan Banks. They can privately tap national and international money and capital markets by issuing commercial paper and mortgage-backed bonds as well as tap markets for government borrowing.

S&Ls in need of liquidity can receive advances that the Federal Home Loan Banks make to member associations at prevailing market rates for terms up to 20 years, constituting a major remedy for S&Ls that need liquidity. The Federal Home Loan Banks charge S&Ls favorable rates that are tied to the relatively low government borrowing rate.

Net Worth

As Table 1 shows, the net worth of thrifts is very low relative to their assets. Thrifts are highly leveraged and risk insolvency if the value of their assets declines by even a small amount. The value of fixed-rate mortgages declines when interest rates increase. Because of this decline, the real net worth of many thrifts is negative, and they are technically insolvent. However, as will be explained later, because regulators allow thrifts to carry mortgages at book value rather than market value, most are still operating.

To further aid thrifts and possibly to prevent a drain of the Federal Savings and Loan Insurance Corporation's insurance reserve, regulators have developed a series of strategies intended to augment the net worth of thrifts. Savings banks are allowed to convert to federal charter and can be either mutually or stockholder owned. In 1982 restrictions on conversion from mutual to stock ownership were eased, and since then a significant number of conversions has been approved. The capital infusion from conversions has served to slow the decline in thrift net worth.

Another action taken by regulators to prevent further net worth declines allows certain subordinated debt to be counted as net worth. Also, under the Depository Institutions Act of 1982, thrifts are allowed to issue net worth certificates to the FSLIC or the FDIC. Using these certificates, the institutions simultaneously add an asset and increase their net worth. However, only those institutions with regulatory net worth in the 0 to 3 percent range that are currently incurring losses can issue the certificates. Thus, the certificates allow institutions that have extremely poor net worth positions to remain solvent in the hope that their position will improve.

The Structure of Tennessee S&Ls

Table 2 presents comparative summary statistics for Tennessee S&Ls and those throughout the U.S. for the year ending December 1983 and for the nine months ending September 1984. As Table 2 shows, Tennessee S&Ls are structured much as the average S&L in the country. The largest portion of their assets is invested in mortgages, and most of these mortgages are financed with funds obtained from savings deposits.

Table 2 does show some differences between Tennessee S&Ls and the U.S. average S&L. Tennessee institutions tend to place a smaller percentage of their assets in loans and, therefore, place a larger percentage of assets in other investments. Tennessee S&Ls tend to finance these assets more from savings deposits, and the S&Ls in Tennessee are less dependent than their U.S. counterparts on funds borrowed from other sources. The yield on earning assets is less for Tennessee institutions than for others; however, the yield spread over cost of funds is greater for S&Ls in Tennessee. The higher yield spread appears to result from a combination of lower operating and financing costs. Given the results presented in Table 2, the average Tennessee S&L appears to be somewhat stronger than the average S&L in the U.S.

TABLE 2
KEY SUMMARY STATISTICS-TENNESSEE AND THE UNITED STATES

	Tennessee		United States	
Assets	December 1983	September 1984	December 1983	September 1984
Average Net Assets[1]	$8.7	$9.5	$751.2	$902.6
Return on Assets	.29%	.09%	.27%	.03%
Yield on Earnings Assets	11.46%	11.69%	11.87%	12.10%
Yield Spread	1.59%	1.79%	1.52%	1.51%
Operating Expenses to Average Assets	1.49%	1.54%	1.67%	1.68%
Total Loans/Total Assets	77.10%	76.50%	78.04%	78.23%
Total Deposits/Total Assets	89.02%	87.52%	81.93%	80.12%
Total Borrowing/Total Assets	5.03%	6.39%	12.08%	14.02%
Regulatory Net Worth/ Total Assets	4.10%	3.86%	4.02%	3.86%

1. Billions of dollars

Source: Compiled from Federal Home Loan Bank Board tapes.

THE REGULATORY ENVIRONMENT

Regulation is designed to protect the public interest as well as the constituencies of the regulators. Thrifts are regulated at both the federal and state levels. At the federal level, the primary regulator is the Federal Home Loan Bank Board and its units. However, the FDIC is the primary regulator of MSBs. State departments of financial institutions and state deposit insurance agencies are the primary regulators at the state level.

The Federal Home Loan Bank Board

Located in Washington, the Federal Home Loan Bank Board supervises the activities of the regional Federal Home Loan Banks, the FSLIC, and the Federal Home Loan Mortgage Corporation. In addition, the Bank Board writes regulations that affect all federally chartered and federally insured thrifts. It is the most important regulator of thrifts.

The Federal Savings and Loan Insurance Corporation

The FSLIC insures deposits in thrifts up to $100,000.00 per account. As part of its insurance function, FSLIC is also charged with examining and supervising federally insured S&Ls and some federally insured MSBs. It also supervises mergers of failing institutions and the liquidation of failed thrifts.

The FSLIC obtains funds for its operations by charging an annual insurance premium to the insured institution. The initial premium was set at 1/12 of 1 percent of insured deposits. However, the FSLIC can levy an additional premium on the industry up to the full amount of its losses and expenses. Even with the option to make up losses, the FSLIC's insurance reserve is very low and probably inadequate to cover potential losses on insured deposits.

Attempting to stem the drain on the insurance reserve fund, the FSLIC has been very creative in handling problem thrifts. The net worth certificates were one creative invention. Other procedures the FSLIC has used include allowing ailing institutions to continue to operate with minimal capital or, if they become insolvent, to merge several failed institutions into a new association called a phoenix — an association that, like the mythical Greek bird, rises from the ashes. An example of such an association was the New Federal Savings and Loan Association of Knoxville, Tennessee. When creating a phoenix the FSLIC can take advantage of certain accounting conventions that help the new association show profits in the first few years of operation. It can also take the opportunity to clean up the asset portfolio of the association, remove problem loans, and thus offer a relatively sound portfolio for sale, thus increasing the potential selling price of the institution.

The Federal Home Loan Bank System

The Federal Home Loan Bank (FHLB) System consists of 12 regional banks. Federally chartered S&Ls are required to join the system; state

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chartered S&Ls may elect to join it. S&Ls that join the system must purchase an amount of FHLB stock to equal 1 percent of their loan portfolio. Although member S&Ls may borrow from their regional FHLB through advances, all members are subject to FHLB regulations.

The Federal Home Loan Mortgage Corporation

The Federal Home Loan Mortgage Corporation (FHLMC) was established in 1970 to help S&Ls sell their mortgage loans. It is under the directorship of the FHLBB, but its ownership was passed from the FHLB System member S&Ls in 1984. The FHLMC purchases mortgage loans from thrifts, repackages them, then offers participations in those packages of loans to investors through the issuance of mortgage-backed securities. Their actions increase the liquidity of S&L assets and allow a continuous flow of mortgage funds to housing markets.

REGULATIONS THAT AFFECT THRIFTS

Asset and Liability Restrictions

Historically, the restrictions on the kinds of assets that thrifts could acquire have been quite severe. Thrifts were limited almost exclusively to investing in mortgages. However, with the passage of the Depository Institutions Deregulation and Monetary Control Act of 1980, thrifts could hold up to 20 percent of their assets in commercial paper, corporate debt securities, credit card loans, and other forms of consumer lending that were previously prohibited. The Depository Institutions Act of 1982 permitted thrifts to make limited commercial loans, make more loans on commercial property, make additional consumer loans, write leases, and purchase state and local government securities. Regulatory changes enacted in 1984 allow thrifts to make limited acquisitions of corporate equity securities. Taken together, these changes have considerably widened the scope of assets available to thrifts.

Thrifts were not allowed to issue savings certificates until the mid-1960s. In 1980, NOW accounts were authorized nationwide. Regulation Q will continue to limit the minimum denomination and terms of small deposit liabilities until it is phased out in 1986. However, in 1982 and 1983 thrifts were permitted to issue money market deposit and SuperNOW accounts with no interest ceilings on deposits of $2,500.00 or more. In addition, in 1982 they were given the power to offer demand deposits to their loan customers.

Net-Worth Restrictions

Even though thrift institutions are required to hold sufficient net worth to protect their depositors and their deposit insurers from harm caused by adverse fluctuations in earnings or asset values, this requirement is an ideal and is virtually impossible to enforce.

Institutional Regulations

The rules and regulations to which thrifts are subjected are designed to protect them from unsafe and unsound practices and to prevent them from taking undue risks. Additionally, regulators administer branching, charter, and merger restrictions that may be used either to prevent excessive competition or to reduce monopolistic concentration in local markets.

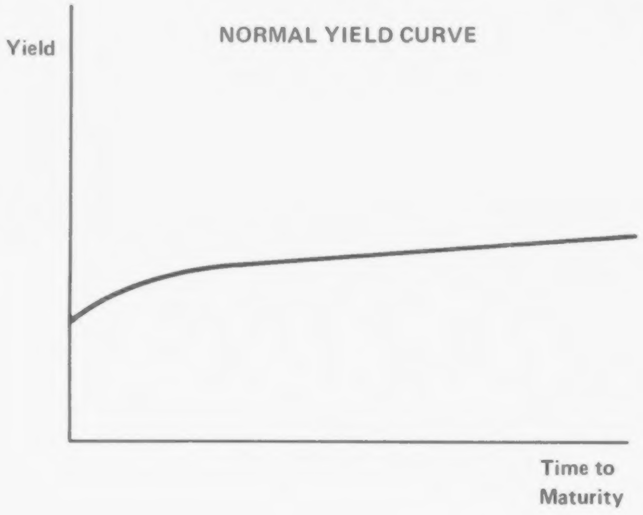
Regulations are designed to force an outcome believed to be socially desirable or in the public interest. Thrifts are regulated in part to protect the unsophisticated consumer, in part to protect the institutions themselves from unsound competitive practices, and in part to protect the insurance funds and the taxpayer. Though regulations may achieve the desired outcome, they may have many undesired side effects, some of which may overpower the intended purpose.

The Basic Problems Faced by Thrifts

Thrift institutions are encouraged to obtain funds from relatively short-term sources. The thrifts then pool these funds and lend them out for considerably longer periods. Such maturity intermediation is extremely profitable as long as interest rates are relatively stable and follow a normal

FIGURE 1

NORMAL YIELD CURVE



course, wherein long-term interest rates remain significantly higher than short-term interest rates. Problems develop under two general circumstances: when short-term rates approach and/or reach higher levels than long-term rates and when all interest rates rise to significantly higher levels.

Maturity Intermediation and Inverted Interest Rates

Thrifts engage in maturity intermediation by offering short-term liabilities and using the funds generated from these liabilities to purchase longer-term assets. If the structure of interest rates is as depicted in Figure 1, such thrifts earn a higher rate of return on their assets than they pay on their short-term liabilities. Practicing maturity intermediation under the normal term-structure is profitable because of the yield curve spread.

FIGURE 2

INVERTED YIELD CURVE

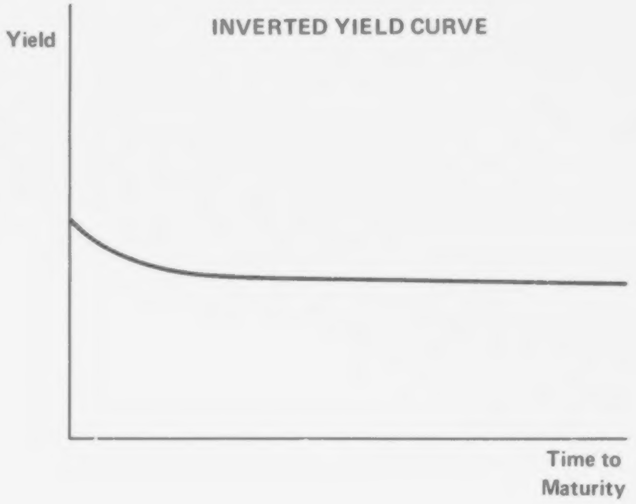
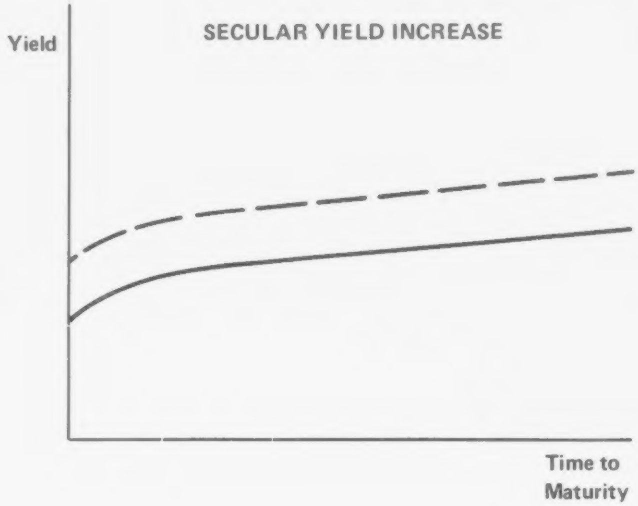


FIGURE 3

SECULAR YIELD INCREASE



Recently neither the interest rate nor the term-structure of interest rates has been stable. Many times short-term interest rates increase sharply, and the term structure becomes either flat or inverted. This occurs when investors expect interest rates to be lower in the future. As Figure 2 shows, when the term structure inverts, short-term interest rates are higher than long-term rates. Maturity intermediation under such circumstances is not profitable. However, thrifts are locked into their long-term position and cannot easily change the maturity of existing assets or liabilities. The institutions must offer higher rates on new liabilities if they are to obtain funds. Otherwise, depositors will withdraw their funds from the thrifts and invest them in assets that offer the going market rate of interest; that is, disintermediation will occur. If thrifts are to maintain liquidity and continue operations, they must accept losses during periods of term structure inversion.

Term structure inversions have historically been short-term phenomena. A potentially more serious problem is a secular increase in interest rates. If, as depicted in Figure 3, interest rates increase for all maturities, thrifts will be forced to pay higher rates to obtain funds, but they will be able to charge higher rates on their assets. However, if the secular increase endures for long or becomes permanent, thrifts must offer higher rates on liabilities to prevent disintermediation. As with an inversion, overall increases are quickly reflected in the price thrifts must pay for their funds. Additionally, a thrift may have the opportunity to increase its portfolio yield to compensate for the increased cost of liabilities. However, due to the long-term nature of mortgages, the adjustment occurs slowly. The institution must have sufficient net worth to sustain losses for a relatively long period or find solutions other than simply reinvesting maturing assets in higher yielding mortgages. Much of the deregulation that has occurred is due to the desire of Congress and the regulators to broaden the realm of possible solutions to these problems and to increase the probability of long-term survival of the thrift industry.

Increasingly, over the 1980-1982 period rate-sensitive deposits coupled with slow responding asset yields produced negative interest rate spreads. Thus the cost of funds exceeded the yield on earning assets. Net income of individual firms and the industry as a whole turned negative, and the capital position of the industry was reduced by approximately $8 billion. Hundreds of individual institutions disappeared through mergers, both voluntary and supervisory, and there were a limited number of actual failures. At the end of 1984, there were 3,136 FSLIC-insured institutions in contrast to the 4,038 in existence at the end of 1979.

THRIFTS IN 1980s AND BEYOND

As is true with most major financial reform measures, efforts to change the thrift system took place under adverse rather than ideal conditions. The critical events of 1980-1982 required immediate action to avoid a total collapse of the industry.

To address the crisis, a variety of legislative and regulatory measures were undertaken during this period which broadened asset and liability powers for thrifts.

To avoid large numbers of failures and to prevent a severe drain on the FSLIC insurance fund, the FHLBB and Congress also undertook a number of measures designed to prop up institutions that were near or at the brink of failure. These measures involved the use of "creative" regulatory accounting. The measures enabled institutions to continue operations, when, under normal circumstances, they might have failed or become supervisory merger/acquisition candidates. As mentioned above, one technique used was to create a "phoenix" institution, consisting of several troubled institutions. Another effort was the net worth certificate program, which allowed institutions to obtain certificates from the FHLB which would count as net worth or capital. Finally, thrifts were allowed to record certain transactions under regulatory accounting practices rather than generally accepted accounting principles as a means of preserving or adding to the capital position of the firm. These included loan loss deferrals which allowed institutions to write off losses from loan sales over a number of years instead of during the period in which the loss occurred. In addition, thrifts were allowed to "write up" the value of fixed assets to market value under an appraised equity capital program, then add the increment to the capital position.

Obviously, these regulatory stopgap measures have been extremely controversial because they are viewed as bail-outs to the industry. From the FHLBB and FSLIC perspective, it was hoped that such efforts would provide a sufficient amount of transition time and aid to enable the institutions to restructure their assets and liabilities and function viably in the financial services world of the mid-to-late 1980s.

Issues Facing Thrifts in the New Financial Services Industry

Given its new powers, how can the thrift industry become a viable force in the financial services industry in the mid-80s? For starters, thrift managers must deal with a number of major issues and challenges.

Increased Competitition. Savings institutions now face competition from a number of fronts. Many competitors were not even in the financial services industry as recently as the late 1970s. Thus, not only must thrifts deal with competition from other thrifts, commercial banks, and credit unions, they must also deal with the products and service from nontraditional competitors. These include the money market mutual funds which offer market rates on investments, plus limited transactions accounts. Then there are the brokerage firms which offer money market accounts with full transaction capability, plus a complete array of investment products; financial conglomerates which offer services ranging from credit cards to insurance to investment products; retailers with full financial service capability for consumers; and the so-called non-bank banks which are bank-like but not completely so.

In addition, the traditional competitors are greatly expanding their geographic market areas. There is an increasing number of both banks and thrifts with branching systems and/or subsidiaries throughout a state and also across state lines.

To compete with the new entrants into financial markets, thrifts must learn to market and price their services and products aggressively.

Changing Technology for Delivering Financial Services. Until recently, financial services and products were delivered almost exclusively from the offices of financial institutions. Now, however, we see an increasing use of computerized telecommunications and other delivery systems far removed from the bricks and mortar of the traditional bank building. Most savings institutions, as well as banks, developed extensive branching networks during the regulated environment of the 1960s and 1970s. They must now develop strategies regarding the new forms of delivery services, and they must decide how to maintain profitable operations in the traditional bricks and mortar components of their system.

Risk Management. Managers of financial institutions today are primarily risk managers, with special emphasis placed on the management of interest rate risk and credit risk. Interest rate risk refers to the impact of changing interest rates on the net interest income and net income position of the institution. In addition, interest rate risk refers to the impact of changing interest rates on the market value of the institution's assets, liabilities, and capital.

Since savings institutions have negative gaps – that is, the amount of rate-sensitive liabilities they hold exceeds the amount of their rate-sensitive assets – all are vulnerable to rising interest rates. When rates increase, the net interest margin of the firm falls, asset values decrease more than liability values, and the market value of capital decreases. Thus the institution is adversely impacted by any increase in rates.

If managers wish to reduce the interest rate risk exposure of the institution, they can do so with a variety of techniques now available to them. These include variable rate and/or short-term lending hedging, interest-rate swaps, fixed-rate borrowing, and asset restructuring. All require the development of management information and expertise not required in the sheltered days of the 1970s.

New powers and increased variable rate lending have also added to the credit risk exposure of thrifts. Consumer loans, commercial loans, and real estate acquisition, development, and construction loans tend to have higher expected default rates than the traditional single-family fixed-rate loan. In addition, adjustable rate loans, because they transfer interest rate risk to the borrower, have the effect of increasing the credit risk of the loan to the lender. This is true because increases in market rates may adversely impact the borrower's ability to repay the loan, should the borrower's income not be able to absorb the increase in debt service. In short, managers today must develop asset/liability management plans with specific operational policies regarding interest-rate risk and credit risk.

Business Planning. Prior to developing specific asset/liability plans and interest rate risk policies, institutions must decide on their general directions and policies, i.e., deciding what type of institution they wish to become. Given the variety of choices available, managers must choose whether they wish to remain a traditional savings institution, become a full service family financial center, become a real estate financial specialist with extensive development and mortgage banking activities, or become as much like a commercial bank as possible.

Deciding which option to choose requires the preparation of a business plan for the institution, one that incorporates an assessment of the institutions strengths and weaknesses, along with its products, and its markets. From this assessment, management can develop an operational strategy for the institution. Institutions must pick from the menu of alternatives, select a niche in the market, and develop a plan to be a viable institution.

Capital Adequacy. The earnings debacle of the 1980-1982 period made painfully clear the capital position of the industry. Since the devastation took place on top of a declining trend in the capital position in the industry, thrifts today are experiencing an extremely low ratio of capital to assets of 3.8 percent at the end of 1983.

The FHLBB and the FSLIC understandably are concerned with this low capital position. Capital serves as the only buffer between the institution and the FSLIC insurance fund in the event of a solvency problem. With the sharp decline in the buffer due to reduced earnings in the early 1980s, and the shrinking of the FSLIC fund itself due to the need to pay out funds in failure cases and selected supervisory assisted mergers and acquisitions, the FHLBB has adopted new regulations imposing growth constraints on institutions. These constraints are based on the net worth positions of the firms. Low capital precludes rapid growth under these new regulations.

Moreover, capital can be obtained in only two ways: through internally generated retained earnings (profitability) or from sale of equity in the market. Since a large number and proportion of firms in the industry are mutual institutions, they can add to capital only by retained earnings. However, they can tap the capital market by converting to a stock savings institution and issuing equity. During the past five years more than 200 mutual institutions have converted to stock institutions, thus adding over $3 billion to the capital base of the industry. As the pressure to add capital increases, more institutions will turn to the conversion mechanism as a vehicle for capital enhancement.

Regulatory and Industry Trends. The deregulatory mood of the Congress and the FHLBB appears to have run its course with respect to thrifts. There is little reason to believe that further broadening of thrift asset powers is on the horizon. Indeed, the FHLBB has already voiced considerable concern about the risk exposure of the industry at the present time. The FHLBB has acted on its concern by setting more severe limitations on the kinds of direct investment in real estate allowed thrifts, and by calling for increased insurance premiums to bolster the weakened FSLIC-insurance fund. Thus, we may be seeing the beginning of a trend toward re-regulation.

The recent trend toward consolidation in the thrift industry is likely to continue. It remains to be seen how many more institutions will disappear in the merger/acquisition movement and how many simply fail.

CONCLUSION

There is no easy answer to the question of how thrifts will fit into the financial services industry of the mid-1980s and beyond. Without question, a significant number of the existing institutions are no longer viable and will limp along only because of the creative accounting practices and artificial net worth policies of the FHLBB. Some of these are likely candidates for failure.

But for most institutions, the opportunities exist for a significant role in the financial services industry. Finding those opportunities and taking advantage of them will require strategies quite different from those used during the regulated days of the recent past. Increased competition and broader asset and investment powers demand that institutions develop strategies with regard to their desired risk exposure, their product and services mix and the geographic markets in which they choose to operate. For those institutions with a successful operational strategy and the capital base to sustain it, the outlook is positive. ■

The Continuing Evolution of Adjustable-Rate Mortgages

500
500
10
50
BALTIC AVENUE
COMMUNITY CHEST
FOLLOW INSTRUCTIONS ON TOP CARD
MEDITER-RANEAN AVENUE
PRICE $60
COLLECT $200.00 SALARY AS YOU PASS
GO
BOARDWALK
PRICE $400
LUXURY TAX
PAY $75.00
PARK PLACE
PRICE $350
CHANCE
SHORT LINE

Joseph A. McKenzie

More changes have occurred in the retail financial services industry in the last seven years than had previously been seen since the Depression. These changes have been brought about by both the increased competitiveness of the retail financial services industry and the chaotic conditions within the financial markets. One of the principal developments has been the emergence of residential mortgages with variable or adjustable interest rates.

Outside of California and Wisconsin, residential mortgages with adjustable interest rates met with considerable borrower resistance until quite recently. Part of the reason was that lenders were asking borrowers to assume essentially all the interest-rate risk without making a significant interest-rate concession. In the past year, lenders have changed their pricing strategy with respect to adjustable-rate mortgages to the extent that some of the adjustable-rate mortgages now being offered will have a lower total interest cost to the borrower, even under moderately adverse interest rates.

A Brief Historical Perspective

Although the long-term, fixed-rate mortgage was available prior to the Depression, the establishment of the Federal Housing Administration (FHA) is the principal reason why the long-term, fixed-rate, fully amortizing mortgage became essentially the sole residential financing vehicle. In fact, from the 1930s until about 1970, variable-rate lending was virtually unknown. For most of this period, variable-rate lending was unnecessary. Interest rates were generally stable, and the yield curve was upward sloping. The thrift industry had a profitable, but not very exciting,

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existence because the interest rate environment was favorable for the granting of long-term, fixed-rate mortgages financed with short-term liabilities.

Beginning in the early 1970s, the thrift industry began to lobby for the authority to offer variable-rate mortgages. The concept was so novel that the Congress forced the Federal Home Loan Bank Board to withdraw proposed regulations that would have allowed savings and loan associations to offer such loans. With the benefit of hindsight, the problems facing thrifts during the 1980-1983 period probably would not have occurred had their portfolios contained significant proportions of variable-rate mortgages.

In 1975, the California legislature allowed state-chartered lenders to offer variable-rate mortgage loans that were indexed to the cost of funds for savings and loan associations. Variable-rate mortgage authority was first extended to federally chartered savings and loan associations in 1978, and the powers were liberalized in 1979, 1980, and 1981. The Garn-St. Germain Depository Institutions Act of 1982 preempted state laws that restricted the use of variable-rate loans. The act permitted state-chartered lenders to follow federal rules if they were more liberal than state laws or regulations dealing with residential mortgage loans.

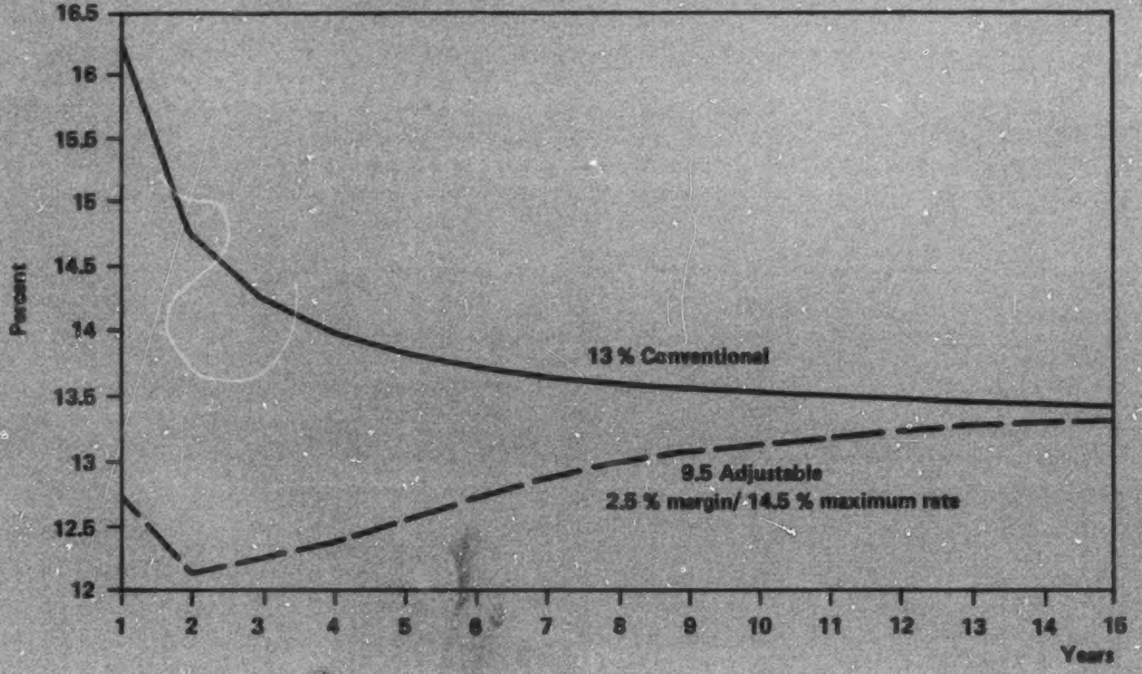
Adjustable-Rate Loans

The common denominator on all adjustable-rate loans is that the rate in the future is determined by some agreed-upon formula, using an index rate. This differs from the system in Canada where the almost universal mortgage is the "rollover" mortgage, in which all the terms are renegotiated every one, three, or five years. The archaic property-recording system used in the U.S. makes this series of notes impractical because of the much higher closing costs in this country compared with Canada. Thus, in the U.S., almost all adjustable-rate loans are long-term fully amortizing loans.

Adjustable-rate loans may have other features, such as interest-rate change limitations or "caps" that pertain to either the maximum periodic or life-of-loan interest-rate change, payment-change limitations, or arrangements whereby payment increases are modified by allowing some accrued but unpaid interest to be added to the loan

FIGURE 1

HOLDING PERIOD YIELDS
(9.5 ARM (5 % CAP) vs. 13 % Conventional)



> **In recent years, the share of adjustable-rate mortgages has risen from under 30 percent of closings to almost 70 percent.**

balance. (This is usually called negative amortization). Most adjustable-rate loans determine the subsequent rate by adding a fixed spread or "margin" to the then-current value of the index, subject to the rate-change limitations, if any. On many new adjustable-rate mortgages, the lender offers the borrower an initial concession by setting the initial rate significantly less than the sum of the margin and the initial value of the selected index.

Given the multiplicity of parameters and possible choices of indices, an almost limitless number of adjustable-rate mortgages exists. In the face of this complexity, two benchmark loans seem to be developing: the first has annual interest-rate adjustments tied to the average yield on U.S. Treasury securities adjusted to a constant maturity of one year (stated on a bond-equivalent and not a discount basis). The annual interest-rate change limitation is 2 percent, with a life-of-loan interest-rate change limitation of 5 percent. The second and more complex kind of loan is being promoted by the large California savings and loan associations. It has monthly interest-rate adjustments tied to a cost-of-funds index. Annual payment adjustments are limited to 7.5 percent, and there is a 5 percent lifetime rate cap. Since the payment changes less frequently with this loan than does the rate, and since the payment change is fairly limited, situations can arise when a monthly payment is insufficient to pay all the interest due that month. When this happens, the unpaid interest is added to the loan balance, and interest is charged on this amount as well. This phenomenon is called negative amortization.

Adjustable-Rate Mortgages

Whether an individual should get an adjustable-rate mortgage depends upon how long the borrower expects to live in the house he is planning to buy and how the adjustable-rate loan is priced in comparison with fixed-rate loans. Borrowers who do not expect to stay long in their new homes almost always do better by selecting an adjustable-rate loan. Such borrowers cannot lock in a fixed rate for any considerable period because they will have to pay for a market rate on a new loan when they move in several years. Furthermore, since borrowers, in general, demand a rate concession in order to assume the additional interest-rate risk on an adjustable-rate loan, those with short expected tenure gain by selecting an adjustable-rate loan because they are assuming little additional interest-rate risk. This borrower self-selection always works unambiguously to the detriment of the lender because the lender is never aware of how long the borrower intends to live in the house.

In recent years, the share of adjustable-rate mortgages has risen from under 30 percent of closings to almost 70 percent. Some of this rise may be attributable to increased familiarity with the adjustable-rate concept, and some may be attributable to a better understanding and decreased suspicion of housing advice columnists and real estate agents toward adjustable rates. More important has been the adoption by lenders of very aggressive pricing strategies toward such loans. According to some analysts, thrift institutions have been so eager to place variable-rate loans in their portfolios that they have underpriced these loans and thus created a permanent negative spread on this portion of their portfolios.

It is difficult to assess whether adjustable-rate loans are priced correctly. So many parameters affect the yield – index, margin, fees, interest-rate caps, and payment caps. The even greater uncertainty is the future course of interest rates. One can, however, examine the cost of an adjustable-rate loan with a given set of parameters compared with that of a similar fixed-rate loan.

The correct method of comparison is to examine the holding period yield of the two mortgages. The holding period yield, a measure of total return, measures the weighted average return over the life of the loan. When comparing adjustable- and fixed-rate loans, one must consider a whole range of holding periods. This is because (1) very few loans are held until maturity; (2) the actual holding period is uncertain since the borrower can prepay a loan with little or no penalty at any time; and (3) a lender's portfolio will contain loans with a whole range of holding periods, even for loans originated at the same time.

In Figure 1, the holding period yields on a 13 percent fixed-rate mortgage are compared with a 9.5 percent adjustable-rate mortgage with annual rate adjustments. The particular comparison needs further explanation. In early February, the GNMA security trading closest to par was the 12.5 percent issue. Because of the servicing and guarantee costs, this 12.5 percent issue has underlying 13 percent mortgages. Thus, in February, a lender could have purchased 13 percent loans in essentially limitless quantity. Meanwhile, in many parts of the country, the 9.5 percent adjustable-rate mortgage "deal" was available. It is an adjustable-rate loan written at a spread of 2.5 percent above the yield on one-year Treasuries, with a periodic interest rate cap of 2 percent and a 5 percent life-of-loan cap measured from the initial rate of 9.5 percent. At the time, an application of the index-plus-margin formula would have yielded a rate of about 11.5 percent. This loan has an initial discount of 2 percent and, since the second-year rate cannot exceed 11.5 percent, the actual discount will be larger if the index rate is above 9.0 percent at the first adjustment. Both loans have 3 "points" associated with them.

The holding period yields presented in Figure 1 assume that the index series (one-year Treasuries) increases by one-half of 1 percent per year each year for the next ten years. The obvious and important point to note is that the holding period yield on the adjustable-rate loan is less than that on the fixed-rate loan for fifteen years even in this adverse interest-rate scenario. While the rate on the adjustable-rate loan does eventually reach 14.5 percent, the enormous present-value cost of the initial discount means that the fixed-rate loan has the higher yield to the lender over reasonable holding periods.

Is the comparison fair? A lender must consider alternative yields when a decision is made to fund a long-term asset, even if that asset has an adjustable interest rate. Second, while the 9.5 percent deal was not universal, it was widespread enough to raise the concern that some lenders were making a very questionable long-term commitment. Third, the interest-rate scenario is weighted in favor of the adjustable-rate loan. Any decline in interest rates makes the comparison much less favorable toward the adjustable-rate loan.

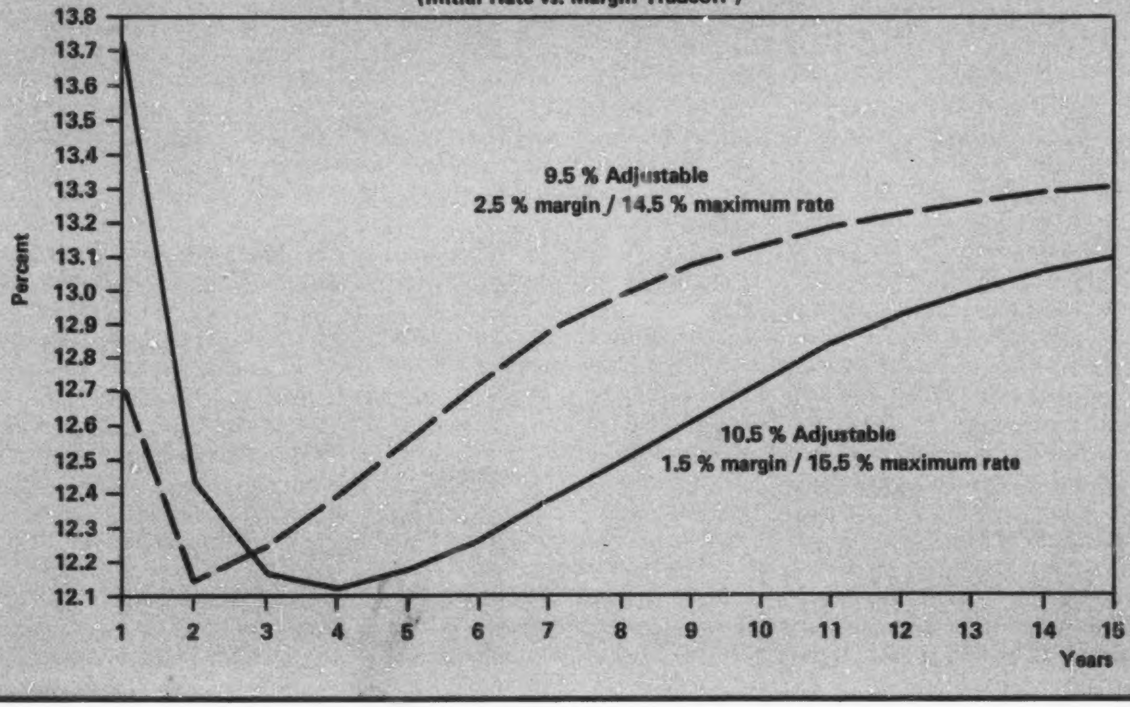
Mortgage loans without large down payments are required to have private mortgage insurance that is paid for by the borrower.

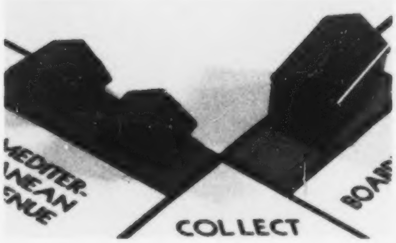
Other Pricing Issues

While many lenders admit that the initial discount is large, they say they make it up by charging a large margin. This strategy will not be very successful if the loan is paid off early in its term or if interest rates decline. A comparison of the same 9.5 percent adjustable-rate loan with a 10.5 percent adjustable-rate loan with a margin of 1.5 percent is presented in Figure 2. The only other difference is that the 10.5 percent loan has a maximum rate of 15.5 percent using the same interest-rate scenario. As is evident, the 10.5 percent loan underperforms the 9.5 percent loan for all holding periods beyond three years, even though it is written at the fully indexed initial rate of index (9 percent

FIGURE 2

HOLDING PERIOD YIELDS
(Initial Rate vs. Margin Tradeoff)





plus the 1.5 percent margin).

Three considerations indicate that the equilibrium margin will be much closer to 1.5 percent than to 2.5 percent. First, both the Federal National Mortgage Association ("Fannie Mae") and the Federal Home Loan Mortgage Corporation ("Freddie Mac") purchase adjustable-rate mortgages at net spreads of 1 percent (the spread net of the servicing fee is usually 3/8 of 1 percent). Second, at some point borrowers will ask what services they are receiving for the 2.5 percent margin. Mortgage loans without large down payments are required to have private mortgage insurance that is paid for by the borrower. These loans, then, have very little credit risk. Third, when a truly active secondary market in adjustable-rate mortgages develops, the spread will be driven down. The reason is that investors will be offered an asset with high credit quality, with a high co-movement of yield with one-year Treasury securities, and one that trades in a broad and deep secondary market. It seems unrealistic to expect such an asset to trade at a 2 percent premium relative to Treasuries, especially since the compounding difference – monthly on mortgages and semiannual on bonds – creates an additional yield advantage of about one-third of 1 percent in favor of the mortgage-backed security.

Can Thrifts Survive?

This discussion leads logically to the question of the future of the thrift industry. As discussed previously, the industry was decimated because of its former exclusive reliance on fixed-rate loans. The ultimate spread on adjustable-rate loans is unlikely to exceed 1.5 percent, and this is an insufficient increase to allow thrifts to pay their overhead and make a profit while running a "matched book" operation. So what are thrifts to do? One certainly cannot recommend that they go back to exclusive reliance on fixed-rate loans.

There are three partial solutions that will help thrifts hold mortgages profitably. First, they must be willing to assume some limited interest-rate risk. One obvious strategy is to fund mortgages that have annual rate adjustments with six-month (or shorter) money. This works because the yield curve is usually very steeply sloped in this range. Following this strategy would mean a cyclical decline in profits as interest rates rise, but it would also mean a cyclical increase in profits as interest rates fall. One of the problems with fixed-rate mortgages is that the refinancing option makes them downward adjustable-rate mortgages, and this creates the asymmetry of interest-rate risk. With an adjustable-rate mortgage with annual interest-rate changes, the asymmetry is not there, even with the deliberate funding mismatch, because the short intervals between rate adjustments will usually make refinancing unprofitable.

A second partial solution allows borrowers to assume less interest-rate risk. It is somewhat paradoxical that the principal means of the restructuring of thrift portfolios is to ask the most risk-averse portion of the population to assume an enormous increase in interest-rate risk. Adjustable-rate mortgages with much narrower interest-rate-change limitations would be more palatable to borrowers. One suspects that borrowers would be willing to pay quite a lot for a significant reduction in the size of the periodic interest-rate-change limitation. The adoption of such caps would probably increase the overall level of thrift profitability, and it would certainly not reduce the variance of thrift earnings. While an annual interest-rate cap of one-half of 1 percent does not seem large, it would mean that the large proportion of loans in thrift portfolios that originated from 1976 to 1978 at average rates of 9.5 percent would now be yielding over 13 percent. If this were the case, "plight" would not be used to describe the current status of the thrift industry.

The third solution is to ask risk lovers to assume more of the interest-rate risk. This means that thrifts should use financial futures and options markets. The speculators in these markets are willing to assume the inherent interest-rate risk at very low prices. Thrifts cannot rely exclusively on hedging in these markets because of the basic risk that arises when no contract is traded in "deposits" or "conventional mortgages."

Summary

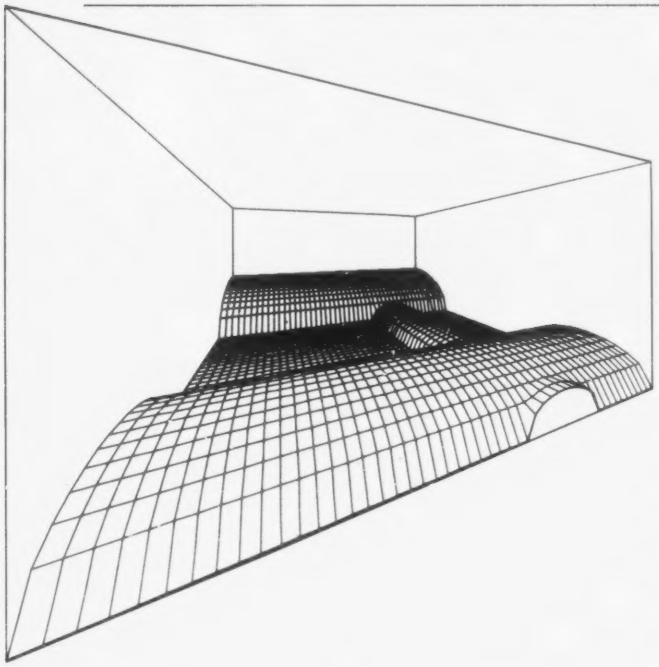
If nothing else, the emergence of adjustable-rate mortgages makes shopping for a mortgage much more difficult by creating many more options and choices. One thing is certain: it is impossible to make categorical statements that a fixed-rate mortgage is always superior to or inferior to an adjustable-rate loan. The evaluation must depend upon the parameters of the individual loan, the pricing of those parameters, the expected tenure of the borrower, and the interest-rate expectations of the borrower.

As it stands, adjustable-rate loans may incur more problems for lenders than for borrowers. There is evidence that some lenders have severely underpriced adjustable-rate loans in the past year. Even more gloomy for the lender has to be the assessment that a matched-book operation funding loans with annual rate changes using one-year deposits is unlikely to generate a significant profit.

Can the thrift industry survive? The answer is probably yes. As an industry, it holds over half the single-family mortgage debt. Someone has to hold mortgage debt in the future, and interest rates will rise by a sufficient amount to induce someone to hold it. That someone probably will be thrifts. The large California thrifts seem to have found a way to hold adjustable-rate mortgage debt and still make a reasonable profit. The survival of thrifts will also probably depend on their increased willingness and ability to bear and *manage* increased amounts of both credit risk and interest-rate risk. ■

Research and Teaching Interests of Finance Faculty
College of Business Administration
The University of Tennessee, Knoxville

FACULTY MEMBER	TEACHING INTEREST	CURRENT RESEARCH PROJECTS
Thomas P. Boehm Ph.D., Washington University	• Real Estate Finance • Economics of Housing	• Analysis of the determinants of neighborhood quality and their impact on housing prices. • An analysis of discrimination in housing markets to measure the amount of price and housing choice discrimination to which black families have been subjected.
Ronnie J. Clayton Ph.D., University of Georgia	• Bank Management • Financial Institutions and Markets	• Development of a pricing model for mortgage-backed securities for the Federal Home Loan Bank, Washington, D.C. • A study of bond duration and forward interest rates which has implications for investment portfolio managers.
William W. Dotterweich Ph.D., University of Pennsylvania	• Insurance and Risk Management • Estate and Personal Finance	• Case book in risk management for the Risk and Insurance Management Society that will be used in colleges and in executive training programs for risk managers.
Michael C. Ehrhardt Ph.D., Georgia Tech	• Investment Theory • Corporate Finance	• A model of changes in the term structure of interest rates in a two-factor mode. • Examination of the relationship between interest rate levels and the return on common stocks.
William C. Goolsby Ph.D., Wisconsin	• Real Estate Development • Public Finance	• A study on pricing adjustable rate mortgages and the expected return to lenders. • A study on the benefit of privatization of wastewater treatment facilities for local governments.
David S. Kidwell Ph.D., University of Oregon	• Commercial banking • Money and Capital Markets	• Analysis of new issue borrowing cost differences between bonds sold in the Eurodollar and domestic bond market. • Analysis of the impact of shelf registrations (SEC Rule 415) on U.S. and foreign capital market borrowing costs.
Joseph P. Ogden Ph.D., Purdue University	• Financial Markets • Corporate Finance	• A study of the impact that monetary policy has upon the term structure of interest rates. • Analysis of the impact of various aspects of the sinking provision on corporate borrowing costs.
George G. Philippatos Ph.D., New York University	• Portfolio Management • Corporate Finance	• A study on the transference of portfolio risk through the use of futures and options. • A study of the impact on shareholder's wealth of major corporate rearrangement such as mergers, takeovers, and divestitures.
Ronald E. Shrieves Ph. D., UCLA	• Corporate Finance • Merger and Acquisitions	• An investigation of the role of inflation of asset values in motivating larger mergers to see whether the increased depreciation tax shield resulting from write-up of asset values in a taxable merger was a significant motivating factor in larger mergers during the 1970s. • A study to test an alternative approach to estimating the effects of merger on returns of acquiring firm stockholders.
John L. Trimble Ph.D., Texas A&M	• Investments • Money and Capital Markets	• A study examining the reason that U.S. firms elect to finance in the Eurobond market as opposed to the domestic securities markets. • Examination of which type of municipal governments benefit the most from the purchase of municipal bond insurance.
John M. Wachowicz, Jr. Ph.D., Illinois	• Corporate Finance • Capital Budgeting	• A comprehensive investigation of the cost and benefit to state and local governments in the purchase of private municipal bond insurance.



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Maximizing Economic Growth with Industrial Development Bonds, published by CBER, provides a philosophy and a uniform set of issuance guidelines that would allow state governments to achieve maximum economic benefits for the state from a limited number of IDBs. The method developed by this study is based upon the premise that IDBs should contribute to the state's output and employment while minimizing costs to the state.

Changes in Tennessee: What the 1980 Census Shows, jointly published by the Tennessee State Planning Office and CBER, this monograph highlights the major changes in the population of the state as a whole as well as the 95 counties. Data presented are taken from publications and computer tapes derived principally from the 1970 and 1980 Censuses of Population and Housing.

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VOLUME 20, NUMBER 4
SPRING 1985

THE UNIVERSITY OF TENNESSEE, KNOXVILLE

survey of business